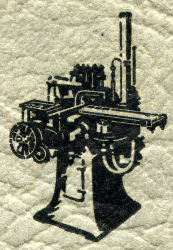
Parts Price List

MONOTYPE CASTING MACHINE

AND TYPE-&-RULE CASTER

Including Improvements
and Attachments



LANSTON MONOTYPE MACHINE COMPANY
PHILADELPHIA, PA.

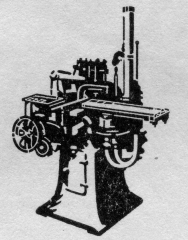
Parts Price List

MONOTYPE CASTING MACHINE

AND TYPE-&-RULE CASTER

Numerical Group Index - Main List - Type-&-Rule Caster
Notes - Improvements - Attachments

With a preface which gives: 1. Our guarantee and charges. 2. Information about loan material. 3. Directions for ordering parts including a simple explanation of our method of designating parts and the way they are arranged in this book.



LANSTON MONOTYPE MACHINE COMPANY
PHILADELPHIA, PA.

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LANSTON MONOTYPE MACHINE CO.
FOURTH EDITION

6420-430

PRICE LIST OF PARTS

GUARANTEE AND CHARGES

WE GUARANTEE every article to be free from all defects of material or workmanship, and will gladly replace (f.o.b. our factory) any parts that are not up to this standard of Monotype quality.

ALL PRICES are net f.o.b. our factory, and are subject to change without notice; all expenses for freight, expressage, postage or special requirements of customers are additional.

EXCHANGES of repaired parts for worn parts (for example, Matrix-jaw Tongs) are based on the material returned being in condition to be repaired. The repaired material is billed at the price of new, and proper credit is given on receipt of the worn material. If the returned material is not in condition to be repaired, the charge for the repaired material furnished will be eighty per cent (80%) of the price of the corresponding new material.

SUPERSEDED PARTS, for example those listed in the "Notes," will be furnished at list prices as long as we have them in stock. When our stock is exhausted, the improved parts which have superseded them must be furnished instead or, if the superseded parts are made special, they will be charged accordingly.

SPECIAL WORK of any kind, such as alterations, changes, rebuilding, repairing, or applying of parts, will be charged extra, in addition to the parts used, unless specifically stated to the contrary.

LOAN MATERIAL

As the principal expense of repairing highly productive machinery is not the cost of the parts repaired but the time lost in making the repairs, we have arranged to reduce this time to the minimum by loaning to our customers certain parts for use while they return to us, for repair, the corresponding parts of their machine.

To make this plan a success the material to be repaired must be shipped to us promptly upon receipt of the loan material, and likewise the loan material must be returned to us promptly upon receipt of the repaired material.

In all cases a small fixed fee is charged for the minimum use of the loan material. In addition to this fixed fee, an additional daily rental is charged as follows: First, for each working day the customer retains his material after the receipt of our loan material; this to start the next working day after the receipt of our loan material, to give the customer time to pack and ship his material. Second, for each working day the customer retains our loan material after his repaired material is received by him, tested and found correct; this to start the second working day after the receipt of his repaired material, to give him one full working day in which to try out the repaired material (for example, a repaired Mold). Therefore, to avoid the daily rental, the customer must ship to us his material for repair not later than the working day following the receipt of our loan material, and must ship to us our loan material not later than the second working day following the receipt of his repaired material.

All shipments of loan material must, of course, be made by express. The customer pays transportation charges in both directions on loan material and on repaired material.

All loan parts are standard—we do not loan special parts nor do we furnish any but standard point-size and standard height Blades in Molds. The loan Molds are carefully inspected each time they are returned, to be sure they are within our limits, but we do not guarantee that the product cast from them will exactly match the product of the Molds which they replace.

The parts which we will loan, together with the fixed fee and daily rental charges, are as follows:

	Fixed Fee	Daily Rental
Mold (Composition 5 to 12 point)	$7.00	$1.75
Short Type Mold (12 point)	14.00	3.50
Display Mold, Single-point-size	7.00	1.75
Display Mold, Multiple-point-size	12.00	3.50
Rule Mold (2, 6 or 12 point)	11.00	2.75
Column Rule Mold (6 point)	11.00	2.75
Material Making Machine Mold (Standard)	5.50	1.00
Cam Shafts (pair)	6.00	1.25
Normal Wedge	1.25	.60
Justification Wedge (front)	1.00	.50
Justification Wedge (rear)	1.00	.50
Space Transfer Wedge	1.00	.50
Type Transfer Wedge	1.00	.50
Lining Gage	2.00	.75

DIRECTIONS FOR ORDERING PARTS
(A Careful Reading Is Important)

All of these directions are essential. You will save time, trouble and money by reading them carefully before ordering any parts.

If you are not familiar with the Monotype terms here used, read "Designation of Parts" and "Contents of this Book" which follow these "Directions for Ordering Parts."

To enable us to fill orders correctly you must give us the following information:

(1) Give the number of the machine for which the part is required (stamped on the Name Plate and also on the Main Stand back of the Air Tower).

(2) Give the name of the part.

(3) Give the symbol of the part (give every character in the symbol exactly as printed—every one means something).

(4) Give the quantity required of each part.

To insure getting the correct name and symbol:

(a) Use the Plate Book in conjunction with this Price List.

(b) Look in the proper place in this Price List (Main List if a part of the standard Composing Machine, Type-&-Rule Caster List if a part of that machine, or Attachments if a part of one of the attachments for either machine).

(c) If a parenthesized line precedes the group in which the part occurs and your machine is among those included in this line follow the instructions given there.

(d) If your Price List contains colored tips opposite the page containing the part desired, be sure to consult them before ordering (they contain the latest information).

(e) To order a complete improvement or attachment for a machine give the number of the machine and the name and number of the improvement or attachment.

DESIGNATION OF PARTS

(Name)	(Quantity)	(Classification Number)	(Symbol)	(Price each)
Bridge-leg Screw (side)	(2).....	**222**	1A3	.08

NAME: Shows that these Screws hold the "Leg" to the "Bridge" and go in from the side.

QUANTITY: Two of these Screws; where no quantity is given "1" is understood.

CLASSIFICATION NUMBER: Standard pieces which may be used in several places under different symbols are given classifying numbers;" those numbers beginning with "**1**" are bolts, "**2**" screws, "**3**" nuts, "**4**" washers, "**5**" dowels, "**6**" springs, "**7**" rivets, "**8**" spring pins and posts, "**9**" cotters. All pieces having the same classification number are alike without regard to what their symbols may be.

SYMBOL: Identifies and locates the part. The letter "A" indicates that these Screws are in the "A" section (the entire machine being divided into eight sections lettered "A" to "H" inclusive). The figure 1 preceding the letter indicates that these Screws are in the first group of this section (the groups comprising each section being numbered consecutively from one up). The figure 3 following the letter indicates that these Screws are the third pieces of this group (the individual pieces comprising each group being numbered thus consecutively). If a lower case letter precedes the first figure in the symbol (for example, Stud b1A11) it indicates there have been one or more changes in the piece and the new piece is not interchangeable with the superseded one without changing or altering other parts. If the section letter is repeated as the last character of the symbol (for example, a1AA) it indicates that this piece is furnished only assembled with one or more other pieces, in which case a reference mark replaces the price and a note at the end of the group gives details and price for the assembly. When a cap "X" is the first character of a symbol (for example, X1A) it calls for the complete group as listed above it.

PRICE: Always given for one piece and must be multiplied by the "quantity" to obtain the total. If a price is given, the piece can be furnished separately. If a black star precedes price, this amount is included in the price of an assembled part given in one of the notes following the group but may be purchased separately if desired. If the price is replaced by a reference mark, it indicates the piece is furnished only assembled with one or more other pieces and the price given in the note at the end of that group includes the price of all pieces in the assembly. The price opposite the complete symbol (symbol starting with "X") is for all the parts in the group as indicated.

CONTENTS OF THIS BOOK

This Price List contains a complete record of all standard and superseded parts for the Composing Machine, the Type-&-Rule Caster, and the Attachments for both; also information to enable the proper parts to be ordered to bring older machines up to date. To simplify the above information, this Price List is divided into six parts as described below, and in addition there will be tips giving changes made after the book proper is printed.

(1) NUMERICAL GROUP INDEX: When you know the symbol of a piece, but not the name, use the Index. It contains a complete list of group symbols arranged numerically within each section and the sections (A to H inclusive) arranged alphabetically. Opposite each symbol is given the name of the group and its location in the Price List. This Index contains no prices.

(2) MAIN LIST: Consists of the parts of the Composing Machine arranged alphabetically; first, by sections (A to H inclusive); second, by groups within each section; third, by individual pieces within each group. When one or more pieces in a group are different on older machines or on attachments a parenthesized line preceding the group calls attention to the machines affected and tells where in the Price List to find these other pieces.

(3) TYPE-&-RULE CASTER: An alphabetical list of parts for the Type-&-Rule Caster similar to that for the Composing Machine (see "Main List" above) with this exception: When a group on the Type-&-Rule Caster is exactly the same as on the Composing Machine or on one of its attachments, only the name of the group and its symbol are given in this Type-&-Rule Caster list; for the pieces of these groups with their prices, see the Main List or Attachment as indicated. All parts not common to both are listed in full.

(4) NOTES: Referred to by the parenthesized lines preceding the groups affected in the other parts of this List. These Notes contain information about parts not on the standard machines (either Composing Machine or Type-&-Rule Caster) or a part of standard attachments; these consist essentially of superseded parts which must still be furnished for repairs or are listed for purposes of record to enable the machine to be brought up to date.

(5) IMPROVEMENTS: Are made so they can be applied to any prior machines. If the improvement affects one or more pieces in a single group the information as to the parts required to apply it is given in the "Notes." When the improvement affects several groups the Notes refer to an "Improvement" where the parts of these groups required for applying the Improvement are collated for convenience in ordering. These Improvements are furnished with the standard machines.

(6) ATTACHMENTS: Are parts for extending the scope of the machines (for example, Display Type Attachment) or for meeting special conditions (for example, Electric Melting Pot). Each Attachment List gives complete the parts composing it. If changes or improvements have been made in the Attachment, reference is made to the same set of Notes and Improvements as is referred to from the Main List.

CHANGES: Any changes or additions to this book after it is printed will be on colored paper. For example, improvements in parts or the addition of parts or attachments will be given on colored sheets tipped in opposite the parts affected and by additional Improvements and Attachments on colored sheets. Therefore, if your Price List contains colored sheets refer to them first to see if they include the parts you desire.

THIS INDEX contains a complete universal list of all groups on the Composing Machine, the Type-&-Rule Caster, and their Attachments and Improvements. These groups are arranged in the numerical order of their symbols in each section and the sections ("A" to "H" inclusive) alphabetically.

Use this Index when the symbol of a part is known but its correct name is not known. This Index gives the name of the part and its location in the Price List.

For brevity, the parts of the Price List are designated in this Index as follows:

M = Main List; **T** = Type-&-Rule Caster List; **N** = Notes (**N**-C7 = Note C7); **A** = Attachments (**A**-10CU = Attachment 10CU). For example: If you wish piece "Xa33A" but do not know its name, look down this Index to the group symbol "33A" (disregard the modifying letters "Xa") and find opposite this, "Centering-pin Micrometer Screw....**M**:**T**." This is the name of the group and the letters "**M**" and "**T**" show it will be found both in the "Main List" of parts and in the "Type-&-Rule Caster" list of parts. Of course, it will be in the "A" section and in its correct alphabetical order in that section in each case.

Part I—Universal Numerical Group Index

(For all Other Parts of this Price List)

SECTION A

Mechanism for carrying the Matrices and holding the proper Matrix accurately on the opening in the Mold while the type is being cast.

1A Bridge....M: T
2A Bridge Lever....M: T
3A Bridge-lever-link Pin....M: T: A-20CU
4A Carrying Frame....M: T
5A Centering Pin (long pin)....T: N-A8: A-9CU: A-22CU
6A Centering-pin Stand....M: T
7A Fibre Stop....M: T
8A Matrix Case....M
9A Sliding Frame....M: T
10A Bridge Bracket....M
11A Bridge-bracket Latch....M
12A Bridge-bracket Spring Box....M
13A Bridge-bracket-spring-box Bell Crank....M
14A Bridge-bracket-spring-box Lifting Tube....M
15A
16A Bridge-bracket Yoke....M
17A Bridge-bracket-yoke Link....M
18A Centering-pin Spring....M: A-10CU
19A Centering-pin-spring Abutment....M
20A Centering-pin-spring-abutment Lever....M
21A Centering-pin-spring-abutment Lever....M
22A Centering-pin-spring-abutment-lever Adjusting Screw....M
23A Lifting-tube Operating Fork....M
24A Lifting-tube-operating-fork Spring....M
25A Lifting-tube-operating-fork Stop....M
26A Bridge Block (obsolete) (see Improveeent No. 1)
27A Centering-pin Guide....T
28A Centering Pin....M
29A Centering Pin....A-21CU, 22CU
30A Centering-pin Auxiliary Lever....M
31A Centering-pin Lifting Link....M
32A Carrying-frame Adjusting Gage....M: T
33A Centering-pin Micrometer Screw....M: T
34A
35A Centering-pin Aligning Lever....M: T
36A Centering-pin Auxiliary Spring....T: A-9CU
37A
38A Matrix Case (for eighteen-point composition)....A-10CU
39A Matrix Holder (for Electro Matrices)....N-A18
40A Matrix Holder (for Cellular Matrices)....M: T
41A Matrix Holder (for Electro Matrices)....M: T
42A Cross-Beam Lifing Lever....M
43A
44A
45A Matrix Holder (for Electro Matrices) (superseded)....N-A18
46A to 49A
50A Mold Oiler....M: T
51A Bridge-bracket-yoke-link Slide....M
52A Bridge-bracket-yoke-link-slide Spring....M
53A Matrix Carrier....A-15CU
54A Matrix-carrier Bracket....A-15CU
55A to 66A
67A Centering-pin-lifting-link-Gag Block....A-20CU

SECTION B

Mechanism for moving the Matrix Case right and left, positioning the Normal Wedge and Justification Wedges, and removing the type after it has been ejected from the Mold.

1B Air Pin....M
2B Air Pin (fixed)....M
3B Air-pin Block....M: T
4B Air-pin Plate....M
5B Matrix Jaw (left)....M
6B Matrix Jaw (right)....M
7B Matrix-jaw Latch....M
8B Matrix-jaw Shoe....M: A-10CU
9B Matrix-jaw-shoe Packing Block (left, large)....M: T: A-10CU
10B Matrix-jaw-shoe Packing Block (left, small)....M: A-10CU
11B Matrix-jaw-shoe Packing Block (right)....M
12B Matrix-jaw Stop Rack....M: A-10CU
13B Matrix-jaw-stop-rack Locking Bar....M: A-10CU
14B Normal-wedge Locking Pin....M: T: A-9CU
15B Normal-wedge-locking-pin Stand....M: T
16B Pin Jaw (left)....M
17B Pin Jaw (right)....M
18B Pin-jaw Guide Rod....M
19B Pin-jaw-guide-rod Stop....M
20B Type Carrier....M: T: A-18CU
21B Type-carrier Connecting Rod....M: T: A-18CU
22B Type-carrier Extension....M: T: A-18CU
23B Type-carrier Shoe (long)....M: T: A-18CU
24B Type-carrier Shoe (short)....M: T: A-18CU
25B Type-carrier-spring-abutment Stand....M: T
26B Type Clamp....M: T: A-18CU
27B Type-clamp Shoe....M: T: A-18CU
28B Type-pusher Guide....M: T: A-18CU
29B Type Pusher....M: T: A-18CU
30B Type-pusher Guiding Lever....N-B21
31B Type Support Spring....M: T: A-18CU
32B
33B Air-pin-block Cover Plate....T
34B Matrix-holder Positioner....T
35B Matrix-holder-positioner Guide Rod....T
36B Pin-jaw-guide-rod Stand....M: T
37B Locking Bar (auxiliary) (front)....A-10CU
38B Locking-bar-bracket Dowel....A-10CU
39B Locking-bar-bracket-lever Rod....A-10CU
40B Locking-bar-bracket Screw....A-10CU
41B to 49B
50B Mold-blade Stop (superseded)....N-B27
51B Mold-blade Micrometer Wedge....A-11CU
52B Mold-blade-micrometer-wedge-stand Screw....A-11CU
53B Mold-blade Operating Bar....A-11CU
54B Cross-block Connecting Rod....A-13CU
55B Matrix-case-positioner Pointer....A-19CU
56B Matrix-case-positioner Guide Rod....A-19CU

SECTION C

Mechanism for moving the Matrix Case forward and back, drawing the Mold Blade back for the proper size type body, and ejecting the type from the Mold.

1C Air Pin....M

2C Air Pin (fixed) ... M
3C Air-pin Block (rear) ... M: T
4C Air-pin Plate ... M
5C Cross Slide ... M: T
6C Cross-slide-extension Shoe ... M: T: A-19CU
7C Cross-slide Guide ... M: T
8C Matrix Jaw (front) ... M
9C Matrix Jaw (rear) ... M
10C Matrix-jaw Stop (front) ... M
11C Matrix-jaw Stop (rear) ... M
12C Matrix-jaw Stop Rack ... M: A-10CU
13C Matrix-jaw-stop-rack Locking Bar (rear) ... M: A-10CU
14C Mold-blade Abutment Slide ... M: T
15C Mold-blade-abutment-slide Spring ... M: T
16C Mold-blade Operating Rod ... M: T: A-13CU: A-20CU
17C Normal-wedge Abutment ... M: T
18C Pin Jaw (front) ... M
19C Pin Jaw (rear) ... M
20C Pin-jaw Guide Rod ... M
21C Pin-jaw-guide-rod Stop ... M
22C Pin-jaw-guide-rod Stand (front) ... M
23C Pin-jaw-guide-rod Stand (rear) ... M
24C Wedge Cover ... M: T
25C
26C Mold-blade Shifter ... T
27C Mold-blade-shifter-extension Guide ... T
28C Mold-blade-shifter Bell Crank ... T
29C Air-pin-block Cover Plate ... T
30C
31C
32C Mold-blade-abutment-slide-abutment-screw Packing Piece ... T: A-9CU
33C Locking Bar (auxiliary) (rear) ... A-10CU
34C Locking-bar-bracket Screw (rear) ... A-10CU
35C Locking-bar-bracket Stud ... A-10CU
36C to 38C
39C Matrix-case Positioner ... A-19CU

SECTION D

Mechanism for bringing the Space Transfer Wedge into position when casting justifying spaces, disconnecting the Pump while the Justifying Wedges are shifted, and starting the Galley Mechanism into action.

1D Air Pin (justification) (right and left) ... M
2D Air Pin (space, center) ... M
3D Air-pin Block ... M: T
4D Bell Crank (center) (for 57D) ... M
5D Bell Crank (left) (for 15D) ... M
6D Bell Crank (right) (for 15D) ... M
7D Bell-crank Fulcrum Pin ... M: T
8D Galley-trip Rod ... M: T
9D Galley-trip-rod Arm ... M: T: A-10CU
10D Justification Wedge (front) ... M: T: A-10CU
11D Justification Wedge (rear) ... M: T: A-10CU: A-9CU
12D Justification-wedge Centering Tooth ... M: T
13D Justification-wedge Lever (for 11D) ... M: T
14D Justification-wedge Lever (for 10D) ... M: T
15D Justification-wedge-lever Arm ... M
16D Justification-wedge-lever-arm Spring ... M
17D Justification-wedge-lever-arm-spring Plate ... M
18D Justification-wedge-lever Fulcrum Pin ... M: T
19D Justification-wedge-stop Block ... M
20D Micrometer Wedge ... M: T
21D Normal Wedge ... M: T: A-9CU
22D Normal Wedge (tabular) (obsolete) ... N-D6
23D to 47D
48D Pump-trip Operating Lever ... M: T
49D Pump-trip Tube ... M: T
50D Pump-trip Spring ... M: T
51D Pump-trip-tube-spring Post ... M: T
52D Space Transfer Wedge ... M: T: A-10CU
53D Space-transfer-wedge Operating Rod ... M: T
54D Transfer-wedge-operating-rod Guide ... M
55D Transfer-wedge Shifter ... M: T
56D Transfer-wedge-shifter Lever ... M
57D Transfer-wedge-shifter-lever Arm ... M
58D Transfer-wedge-shifter-lever-arm Spring ... M
59D Transfer Tongs ... M
60D Transfer-wedge Spring Box ... M
61D Transfer-wedge-spring-box Stand ... M
62D Type Transfer Wedge ... M
63D Type-transfer-wedge Operating Rod ... M
64D Normal-wedge Protection Plate ... N-D7
65D
66D Justification-wedge Position Plate ... T
67D Normal-wedge Position Plate ... T
68D Space-transfer-wedge-operating-rod Guide ... T
69D Justification-wedge Gage ... A-9CU
70D Normal-wedge Gage ... A-9CU

SECTION E

Mechanism for receiving power from the belt and transmitting it to the various portions of the machine (includes also the piping in the Main Stand and the piping for the control mechanisms on certain attachments).

1E Base ... M: T
2E Belt-shifter Arm (front) ... M
3E Belt-shifter Arm (rear) ... M: T: A-9CU
4E Belt-shifter Eye ... M: T: A-9CU
5E Belt-shifter Ring ... M: T: A-9CU
6E Belt-shifter-ring Rod ... M: T: A-9CU
7E Cam-lever Shaft (front) ... M: T
8E Cam-lever Shaft (rear) ... M: T
9E Cam-lever-shaft Stand ... M: T: A-10CU
10E Cam Shaft (driving) ... M: T
11E Cam Shaft (driven) ... M: T
12E Cam-shaft Stand ... M: T
13E Centering-pin Cam ... M: T
14E Centering-pin-cam Lever ... M: T
15E Centering-pin-cam-lever Shaft ... M: T: A-11CU
16E Centering-pin-Lever ... M: T
17E Door ... M: T
18E
19E Gear Cover (front) ... M: T
20E Gear Vernier ... M: T
21E Jaw-tongs Bell Crank ... M
22E Jaw-tongs-bell-crank Fulcrum Stud ... M
23E Jaw-tongs Cam ... M
24E Jaw-tongs-cam Lever ... M
25E Jaw-tongs-cam-lever Shaft ... M
26E Jaw-tongs Spring Box ... M
27E Jaw-tongs-spring-box Ball Socket (lower) ... M
28E Locking-bar Bell Crank ... M: A-10CU
29E Locking-bar Bell Crank (upper) ... A-10CU: N-E16
30E Locking-bar-bell-crank Spring ... A-10CU: N-E16
31E Locking-bar-bell-crank-spring Post ... A-10CU: N-E16
32E Locking-bar-bell-crank Stud ... M
33E Locking-bar Operating Rod ... M
34E Locking-bar-cam Lever ... M
35E Locking-bar-cam-lever Fulcrum Stud ... M
36E Main Stand ... M: T
37E Matrix-jaw Tongs (front) ... M
38E Matrix-jaw Tongs (rear) ... M
39E Matrix-jaw-tongs Stud (front) ... M
40E Matrix-jaw-tongs Stud (rear) ... M
41E Mold-blade Bell Crank ... M: T: A-13CU
42E Mold-blade-bell-crank Stud ... M: T
43E Mold-blade Cam ... M: T
44E Mold-blade-cam Lever ... M: T: A-10CU: A-9CU
45E Mold-blade Connecting Rod ... M: T
46E Mold-blade-connecting-rod Ball Socket (left) ... M: T
47E Mold-blade-connecting-rod Ball Socket (right) ... M: T
48E Mold Clamp (front) ... M: T
49E Mold Clamp (side) ... M: T
50E Mold Screw ... M: T
51E
52E Paper-tower Cam ... M
53E Paper-tower-cam Lever ... M
54E Paper-tower Operating Rod ... M
55E Pin-jaw Tongs (front) ... M
56E Pin-jaw Tongs (rear) ... M
57E Pin-jaw-tongs Spring ... M
58E Pin-jaw-tongs-spring Bell Crank (front) ... M
59E Pin-jaw-tongs-spring-bell-crank Stud ... M
60E Pin-jaw-tongs-spring Connecting Link (long, front) ... M
61E Pin-jaw-tongs-spring Connecting Link (short, rear) ... M
62E Pin-jaw-tongs-spring Lever (rear) ... M
63E Pin-jaw-tongs Stud (rear) ... M
64E Pulley (driving) ... M: T
65E Pulley (loose) ... M: T: A-9CU
66E Pump Cam ... M: T
67E Pump-cam Lever ... M: T
68E Pump-cam-lever Connecting Rod ... M: T
69E Transfer-wedge Cam ... M
70E Transfer-wedge-cam Lever ... M
71E Type-carrier Cam ... M: T
72E Type-carrier-cam Lever ... M: T
73E Type-pusher Bell Crank ... M: T
74E Type-pusher-bell-crank Fulcrum Stud ... M: T
75E Type-pusher Cam ... M: T
76E Type-pusher-cam Lever ... M: T
77E Type-pusher Connecting Rod ... M: T
78E Type-pusher-connecting-rod Ball Socket (right) ... M: T
79E Water Connection (front) ... M: T
80E Worm Shaft ... M: T: A-12CU
81E Jaw-tongs-spring-box Ball Socket (upper) ... M
82E Locking-bar-bell-crank Latch (lower) ... N-E16
83E Locking-bar-bell-crank Latch (upper) ... N-E16
84E Locking-bar-bell-crank-latch Spring ... N-E16
85E Locking-bar-bell-crank-latch-spring Post ... N-E16
86E Locking-bar Cam ... M
87E Mold-blade-carrier-latch Bell Crank ... M: T
88E Mold-blade Tongs ... N-E42
89E Mold Clamp (front) ... M: T
90E to 92E
93E Cam-lever-shaft Distance Ring (on 7E) ... T
94E Main-stand-air-pipe Cover ... T
95E
96E Mold-blade-lever-compound-lever Abutment ... T: A-9CU
97E Belt-shifter Operating Bar ... T: A-9CU
98E Belt-shifter-operating-bar Connecting Rod ... T: A-9CU
99E Belt-shifter-operating-bar-connecting-rod Guide ... T: A-9CU
100E Belt-shifter-operating-bar Lever ... T: A-9CU
101E Clutch Control Shaft ... T: A-9CU
102E Clutch Control Operating Rod ... T: A-9CU
103E Clutch-control-operating rod-eye Pin ... T: A-9CU
104E Clutch Gear ... T: A-9CU
105E Clutch Shifter ... T: A-9CU
106E Clutch-shifter Spring ... T: A-9CU
107E Gear Cover (rear) ... T: A-9CU
108E Interlocking Lever ... T: A-9CU
109E Interlocking-lever Operating Rod ... T: A-9CU: 12CU
110E Interlocking-lever-operating-rod Guide ... T: A-9CU
111E Interlocking-lever Spring ... T: A-9CU
112E Interlocking-lever Fulcrum Stud ... T: A-9CU
113E Oil Guard ... M: T
114E Oil Pan ... M: T
115E Oil-pan Shelf ... M: T
116E Oil-pan-shelf-bracket Bolt ... M: T
117E Sliding Gear ... T: A-9CU
118E Sliding-gear Shifter ... T: A-9CU
119E Sliding-gear-shifter Yoke ... T: A-9CU
120E Sliding-gear Hollow Shaft ... T: A-9CU
121E Sliding-gear Safety Lever ... T: A-9CU
122E Speed Bracket ... T: A-9CU
123E Speed-bracket Cone Shaft ... T: A-9CU
124E Speed-bracket Driving Shaft (front) ... T: A-9CU
125E Speed-bracket Driving Shaft (rear) ... T: A-9CU
126E Speed-bracket Quadrant ... T: A-9CU
127E Speed-bracket-quadrant Bolt ... T: A-9CU
128E Speed-bracket-quadrant-bolt Nut ... T: A-9CU
129E Speed-bracket-quadrant Shaft ... T: A-9CU
130E Speed-bracket Screw ... T: A-9CU
131E Speed-bracket Sliding Shaft ... T: A-9CU
132E Speed Index Plate ... T: A-9CU
133E Tumbler ... T: A-9CU
134E Centering-pin-lever Bracket ... A-11CU: 13CU
135E Clamping-screw Connecting Rod ... A-11CU
136E Auxiliary Bracket ... A-11CU
137E Guard ... A-11CU
138E Operating-bar Lever ... A-11CU
139E Operating-bar-lever Fulcrum Pin ... A-11CU
140E Centering-pin-lever Gag Block ... A-9CU
141E Spring Box ... A-11CU
142E Spring-box Lever ... A-11CU
143E Spring-box-lever Fulcrum Pin ... A-11CU
144E Spring-box-lever Link ... A-11CU
145E Spring-box-lever-link Pin ... A-11CU
146E
147E Operating-lever Abutment ... A-13CU
148E Shear Cam ... A-12CU
149E Mold-clamp Connecting Rod (front, long) ... A-13CU
150E Mold-clamp Connecting Rod (left, short) ... A-13CU
151E Air Pipe (to 155E1) ... A-10CU
152E Air Pipe (155E1 to 37B2) ... A-10CU
153E Air Pipe ... A-10CU
154E Air Pipe ... A-10CU
155E Air Supply Bracket ... A-10CU
156E Air-supply-bracket Screw ... A-10CU
157E Locking Piston (for d13B) ... A-10CU
158E Locking-piston Bar ... A-10CU
159E Locking-piston-bar Lever ... A-10CU
160E Locking-piston-bar-lever Fulcrum Stud ... A-10CU

161E Locking-piston-bar-lever Link A-10CU
162E Locking-piston Cylinder A-10CU
163E
164E Locking Piston (for c13C) A-10CU
165E Locking-piston Bar A-10CU
166E Locking-piston Cylinder A-10CU
167E Locking-piston-cylinder Screw (for 166E1) A-10CU
168E Cam-shaft-stand-packing Piece ..... M: T
169E Starting Bar ..... T
170E Starting-bar Lock Bracket ..... T
171E Starting-bar-lock-bracket Stud ..... T
172E Starting-bar Stud (for a97E2) ..... T
173E to 196E
197E Name Plate ..... T
198E to 274E
275E Centering-pin Loading Lever A-20CU
276E Guard A-12CU

SECTION F

Mechanism for receiving type from the Type Carrier and assembling it in lines on the Galley Pan.

1F Column Pusher ..... M: A-10CU: A-21CU
2F Column-pusher Adjusting Screw ..... M: A-21CU
3F Column-pusher-adjusting-screw Stand ..... M: A-21CU
4F Column-pusher Fulcrum Screw ..... M: A-12CU
5F Column-pusher Lever ..... M: A-10CU: A-21CU
6F Column-pusher-lever Stud ..... M
7F Column-pusher Spring ..... M
8F Column-pusher Spring Box ..... M
9F Column Support (short) ..... M
10F Column Support (medium) ..... M
11F Column Support (long) ..... M
12F Column Support (extra long) ..... M
13F Galley Bar ..... M
14F Galley Cam ..... M
15F Galley-cam Shaft ..... M
16F Gallety-cam Stand ..... M
17F Galley-pan Shelf ..... M: T: A-12CU
18F Galley-pan Support ..... M: T
19F Line Hook ..... M: A-21CU: 18CU
20F Line-hook Carriage ..... M
21F Line-hook Operating Bar ..... M
22F Line-hook-operating-bar Stop ..... M
23F Line-hook Operating Slide ..... M
24F Line-hook-operating-slide Shoe ..... M
25F Line-hook-operating-slide Lever ..... M
26F Line-hook-operating-slide-lever Stud ..... M
27F Line-hook-operating-slide Spring Box ..... M
28F Line-hook Stud ..... M
29F Line Support (thin) ..... M
30F Line Support (thick) ..... M
31F Main Galley Stand ..... M: A-12CU
32F Operating Lever ..... M
33F Operating-lever Latch ..... M: A-10CU
34F Operating-lever-latch Spring ..... M
35F Operating-lever-latch-spring Post (in a31F) ..... M
36F Operating-lever-latch Stand ..... M
37F Operating-lever Spring Box ..... M: A-9CU
38F Operating-lever Stud ..... M
39F Rule ..... M
40F Rule Lever ..... M
41F Rule-lever Stud ..... M
42F Sort Tray ..... M
43F Sort-tray Support Bar ..... M
44F Stop Slide ..... M: A-10CU: A-21CU
45F Trip Lever ..... M
46F Trip-lever Fulcrum Stud ..... M
47F Trip-lever Spring ..... M
48F Trip-lever-spring Post ..... M
49F Type Channel Plate ..... M
50F Type Channel Block (adjustable) ..... M: T: A-9CU: 13CU
51F Type Channel Block (fixed) ..... M: T: A-9CU: 13CU: 18CU
52F
53F Line-hook-operating-slide Latch ..... M
54F Line-support Pusher ..... M
55F Line-support-pusher Catch Plate ..... M
56F Line-support-pusher Restoring Latch N-F35
57F Operating-lever Latch N-F35
58F
59F
60F Stop Slide N-F35
61F Stop-slide Rock Shaft (square, left) N-F35
62F Stop-slide Rock Shaft (square, right) N-F35
63F Stop-slide-rock-shaft Stand (left) N-F35
64F Stop-slide-rock-shaft Stand (right) N-F35
65F Type Channel Plate N-F35
66F Weight ..... M
67F Weight Bracket N-F35
68F Weight Cord ..... M
69F
70F Type-channel-block Stand ..... T: A-12CU
71F to 75F
76F Box (for short leads and rules) A-12CU
77F Channel Bar (for leads and rules) A-12CU
78F Galley A-12CU
79F Guide Plate (front) A-12CU
80F Guide Roller (for strips) A-12CU
81F Main Bracket A-12CU
82F Main-bracket Buffer (for Shear) A-12CU
83F Shear Blade A-12CU
84F Shear-blade Guide A-12CU
85F Shear-blade Shoe A-12CU
86F Shear-blade-shoe-tube Clamp A-12CU
87F Shear-blade-shoe-tube Guide A-12CU
88F Shear Gage A-12CU
89F Shear-gage Spring A-12CU
90F Stacker Plate A-12CU
91F Stacker Rock Shaft A-12CU
92F Stack Support Block A-12CU
93F Supporting Beam A-12CU
94F Supporting-beam Bracket (right) A-12CU
95F Supporting-beam Bracket (left) A-12CU
96F Transfer Bar (rear) A-12CU
97F Transfer Bar (front) A-12CU
98F
99F
100F Transfer-bar-hanger Rod A-12CU
101F Transfer-bar Operating Lever A-12CU
102F Transfer-bar-operating-lever Adjusting Screw A-12CU
103F Transfer-bar-hanger Spring (long) A-12CU
104F Transfer-bar-hanger Spring (short) A-12CU
105F Name Plate A-12CU
106F Main-bracket Screw A-12CU
107F Main-bracket Shield A-12CU
108F Shear Bell Crank A-12CU
109F Shear-bell-crank Adjusting Screw (in a81F1) A-12CU
110F Shear-cam Lever A-12CU
111F Shear-cam-lever Fulcrum Pin (for Composing Machine) A-12CU
112F Shear-cam-lever Fulcrum Pin (for Type-&-Rule Caster) A-12CU
113F Shear-cam-lever-fulcrum-pin Bracket A-12CU
114F Shear-cam-lever Spring A-12CU
115F Shear Operating Pin A-12CU
116F Shear Trip Lever A-12CU
117F Shear-trip-lever Spring A-12CU
118F Shear-trip-lever-spring Bar A-12CU
119F Shear Yoke A-12CU
120F Shear-yoke Spring A-12CU
121F Stacker-rock-shaft Connecting Rod A-12CU
122F Thrust Bar A-12CU
123F Thrust-bar Bell Crank A-12CU
124F Thrust-bar-bell-crank Fulcrum Pin A-12CU
125F Thrust-bar-bell-crank Operating Bar A-12CU
126F Thrust-bar-bell-crank Spring (long) A-12CU
127F Thrust-bar-bell-crank Spring (short) A-12CU
128F Thrust-bar Latch A-12CU
129F Thrust-bar Operating Rod A-12CU
130F Column-pusher Spring A-12CU
131F Weight-cord Sheave ..... M
132F to 174F
175F Friction Plate A-12CU
176F Stacker Guard A-12CU

SECTION G

Mechanism for moving and positioning the controller paper and admitting air to the Pin Blocks.

1G Air-tower Housing ..... M
2G Air Bar ..... M
3G Air-bar Clamping Lever ..... M
4G Air-bar-clamping-lever Connecting Rod ..... M
5G Air-bar Shaft ..... M
6G Air Pipe ..... M
7G Air-pipe Cover (right) ..... M
8G Air-pipe Cover (left) ..... M
9G Basket ..... M
10G Name Plate ..... M
11G
12G Paper-feed Locking Lever ..... M
13G Paper-feed Pawl ..... M
14G Paper-feed-pawl Ring ..... M
15G Paper-feed-pawl Stud (lower) ..... M
16G Paper-feed-pawl Stud (upper) ..... M
17G Paper-feed Spring Box ..... M
18G Paper Tension Bar ..... M
19G Paper-tower Lever ..... M
20G Pin Wheel ..... M
21G Winding Spool ..... M
22G Winding-spool Driving Shaft ..... M
23G Winding-spool Driving Ratchet ..... M
24G Winding-spool Operating Spring ..... M
25G Winding-spool-spring-box Plunger ..... M

SECTION H

Mechanism for melting metal and forcing it into the Mold, also the supply and drain pipes to their connections with the parts they supply.

1H Air Pipe ..... M: T
2H Air Cock ..... M: T
3H Air-pipe Clamp (obsolete) N-H3
4H Gas Burner ..... M
5H Gas Burner (for light in Base) (obsolete) N-H5
6H Gas-burner Stand ..... M: A-12CU
7H Gas Cock ..... M: T
8H Gas Nipple ..... M
9H Gas Pipe (iron) ..... M: T
10H Gas Regulating Valve ..... M
11H Gas-regulating-valve Stand ..... M
12H Melting Pot ..... M: T: A-16CU
13H Melting-pot Chimney ..... M: T: A-11CU
14H Nozzle ..... M: T: A-9CU: A-11CU: 20CU
15H Nozzle Squaring Pin ..... M: T
16H Pipe Bracket ..... M: T
17H Piston ..... M: T: A-9CU: 11CU: 20CU
18H Piston Lever ..... M: T
19H Piston Operating Rod ..... M: T: A-9CU
20H Piston Spring ..... M: T: A-9CU: A-20CU
21H Pump Bell Crank ..... M: T
22H Pump-bell-crank Connecting Rod ..... M: T
23H Pump Body ..... M: T: A-11CU: A-20CU
24H Pump-body Lever ..... M: T
25H Pump-body Lifting Lever (Piston end) ..... M: T: A-16CU
26H Pump-body Lifting Lever (Nozzle end) ..... M: T: A-16CU
27H Pump-body Lifting Spring ..... M: T: A-9CU
28H Pump-body Operating Rod ..... M: T
29H Pump-body-operating-rod Lever ..... M: T
30H Pump-body-operating-rod-lever-stand Support ..... M: T
31H Pump-body Spring ..... M: T: A-9CU
32H Pump-lever Connecting Link ..... M: T
33H Pump Rocker Arm ..... M: T
34H Pump Operating Lever ..... M: T
35H Pump Trip ..... M: T: A-12CU
36H Pump-trip Catch Plate N-H22
37H Swing Frame ..... M: T
38H Swing-frame Post ..... M: T: A-9CU
39H Swing-frame Screw ..... M: T
40H Swing-frame-screw Crank ..... M: T
41H Thermometer ..... M: T
42H Water Escape Valve ..... M: T
43H Water Pipe (drain from a36E) ..... M: T
44H Water Pipe (drain from Mold) ..... M: T
45H Water Pipe (supply) ..... M: T
46H Water Pipe (drain from a16H) ..... M: T
47H Water-pipe Connection (side on Main Stand) ..... M: T
48H Water Supply Valve ..... M: T
49H Gas Hose (1-2″ x 18″) ..... M: T
50H Gas Hose (3-8″ x 15 3-4″) ..... M
51H Gas Hose (3-8″ x 19 1-2″) ..... M
52H Water Supply Cock ..... M: T
53H
54H Pump-trip-rod Handle N-H35
55H Gas Burner ..... M: T: A-11CU
56H Gas-cock Operating Handle ..... M: T
57H Latch ..... A-9CU: T
58H Latch Abutment ..... T: A-9CU
59H Latch-abutment Spring ..... T: A-9CU
60H Latch Pin ..... T: A-9CU
61H Latch Spring ..... T: A-9CU
62H Latch Stand ..... T: A-9CU
63H Pump-body-spring-rod Stop Block ..... T: A-9CU
64H Pump-body-spring-rod-stop-block Spring ..... T: A-9CU
65H Gasoline Burner A-3CU

Part II—Prices

Mechanism for carrying the Matrices and holding the proper matrix accurately on the opening in the Mold while the type is being cast. **Section A**

(For machines prior to 4109 see Note A1)

Bridge		a1AA	*
leg		1A2	*
" screw (side) (2)	222	1A3	*.08
" " (top)	228	1A4	*.08
" spring post (for 7A1)		1A5	.07
bushing (for 4A1) (2)		1A6	2.64
" nut (hexagonal) (2)		1A7	.60
" adjusting screw (2)		1A9	.13
pin (for 7A)	7165	1A10	*.07
screw (2)	24	1A1	.13
stud		b1A11	*.16
" cotter	94	a1A12	*.00
BRIDGE group		**X1A**	**46.67**

*a1AA is assembled with 1A2, 1A3, 1A4, 1A10, b1A11 and a1A12. Price..... 39.60

(For machines prior to 4113 see Note A2)

Bridge Bracket		10A1A	*
dowel (2)	57	10A2	.04
plunger (lock for 14A1)		10A3	.20
" spring	6176	10A4	.07
" " abutment		10A5	.07
screw (3)	2198	10A6	.08
stop screw (abutment for 22A1)		10A7	.13
" " lock nut	390	10A8	.08
spring (2)	6123	a10A10	.11
" pin		a10A9	*.05
BRIDGE BRACKET group includes X11A...		**Xa10A**	**17.93**

*10A1A is assembled with a10A9 and X11A. Price..... 16.84

BRIDGE-BRACKET LATCH (see Note A23).... X11A

(For machines prior to 2203 not equipped with Low Quad Device, see Note A3)

Bridge-bracket Spring Box		12A1	1.32
cap (upper abutment for 12A8)		12A2	.60
pin		12A3	.07
" cotter (2)	97	12A4	.00
rod		12A5A	*
" adjusting nut	35	12A6	.05
" " " lock nut	37	12A7	.05
spring	6141	12A8	.20
" abutment (lower)		12A9	*
BRIDGE-BRACKET SPRING BOX group		**X12A**	**2.65**

*12A5A is assembled with 12A9. Price.. .36

(For machines prior to 2203 not equipped with Low Quad Device, see Note A3)

Bridge-bracket-spring-box Bell Crank		13A1	2.32
stud		13A2	.20
" nut	310	13A3	.07
BRIDGE-BRACKET-SPRING-BOX BELL CRANK group		**X13A**	**2.59**

(For machines prior to 7210 see Note A24)

Bridge-bracket-spring-box Lifting Tube		14A1	1.98
nut	320	14A3	.08
washer	457	a14A4	.07
BRIDGE-BRACKET-SPRING-BOX LIFTING TUBE group		**Xa14A**	**2.13**

(For machines prior to 4113, see Note A4)

Bridge-bracket Yoke		16A1A	*
fulcrum pin		16A2	.08
" " cotter (2)	97	16A3	.00
stud (for a17A1 and a17A2) (2)	876	a16A4	*
" cotter (2)	97	16A5	.00
BRIDGE-BRACKET YOKE group		**X16A**	**2.26**

*16A1A is assembled with a16A4. Price 2.18

(For machines prior to 5540 see Note A3)

Bridge-bracket-yoke Link (left)		a17A1	.60
(right)		a17A2	.60
pin (for 24A8)		17A3	.14
" nut (2)	33	17A4	.05
" washer (2)	440	17A5	.04
BRIDGE-BRACKET-YOKE LINK group		**Xa17A**	**1.52**

(For machines prior to 7210 see Note A25)

Bridge-bracket-yoke-link Slide		**a51A1**	**1.00**

(For machines prior to 5540 see Note A22)

Bridge-bracket-yoke-link-slide Spring (2)	6131	52A1	.11
eye (4)		52A2	.04
BRIDGE-BRACKET-YOKE-LINK-SLIDE SPRING group (2) each		**X52A**	**.19**

(For machines prior to 4008 see Note A5)

Bridge Lever		b2AA	*
connecting link		2A1	*1.66
fulcrum rod		2A2	.20
" " forked eye		2A3	.79
" " nut (2)	314	2A4	.07
" pin		2A5	.13
" " cotter	95	2A6	.00
bushing (2)	459	a2A7	*.07
BRIDGE LEVER group		**Xa2A**	**5.42**

*b2AA is assembled with a2A7. Price. 2.50

(For machines prior to 2514 see Note A6)

Bridge-lever-link Pin		a3AA	*
spring		a3A1	*.13
BRIDGE-LEVER-LINK group		**X3A**	**.66**

*a3AA is assembled with a3A1. Order by complete symbol X3A.

(For machines prior to 503 see Note A7)

Carrying Frame		4A	8.58
guide rod (2)		4A1	3.30
" " stop nut (2)		4A2	.53
" " " " lock nut (2)	326	4A3	.07
" " oil cap (2)		a4A4	.13
" " " " screw (2)		a4A5	.04
" " cross beam		a4A6A	*
" " " " nut (2)	314	4A7	.07
" " " " stud		a4A8	*.34
" " " " " adjusting nut		4A9	.20
" " " " " lock nut	323	4A10	.07
" " " " " spring	61	4A11	.13
raising spring (2)	63	4A12	.16
CARRYING FRAME group		**Xa4A**	**19.90**

*a4A6A is assembled with a4A8. Price 2.32

Carrying-frame Adjusting Gage		**32A1**	**6.60**

(For machines prior to 2203 not equipped with Low Quad Device, see Note A8)

Centering Pin		28A1A	*
key	7176	28A2	*.01
nut	310	28A3	.07
CENTERING PIN group		**X28A**	**4.69**

*28A1A is assembled with 28A2. Price. 4.62

On account of the trouble experienced in plants using reground CENTERING PINS it has been recommended by our mechanical men that the practice of regrinding CENTERING PINS be abolished. Accordingly, reground CENTERING PINS will no longer be furnished.

(For machines prior to 4109 see Note A9)

Centering-pin Aligning Lever (left)		35A1	1.66
plunger		35A2	.08
stud		35A3	.22
" nut	310	35A4	.07
(rear)		35A5	.66
plunger		35A6	.08
spring	6175	35A7	.16
CENTERING-PIN ALIGNING LEVER group....		**X35A**	**2.93**

(For machines prior to 2203 not equipped with Low Quad Device, see Note A3)

Centering-pin Auxiliary Lever (2)		30A1A	*
fulcrum link (2)		30A2	*
" " eye bolt		30A3	*
" " " " nut (2)	310	30A4	*.07
" " pin (2)		30A5	*
operating link (2)		30A6	*
" " pin (lower)		30A7	*
" " " (upper)		30A8	*
trunnion block		30A9	*
CENTERING-PIN AUXILIARY LEVER group...		**X30A**	**6.00**

*We cannot furnish separate parts of these LEVERS except those for which a price is given. Instead we exchange repaired for worn LEVERS Price for exchange is..... 3.00

(For machines prior to 3843 see Note A10)

Centering-pin Lifting Link (2)		31A1A	*
yoke		31A2	*
adjusting screw (outer)		31A5	.34
" " lock nut	323	31A6	.07
CENTERING-PIN LIFTING LINK group		**Xa31A**	**2.73**

*31A1A is assembled with 31A2. Price. 2.32

(For machines prior to 4109 see Note A9)

Centering-pin Micrometer Screw (2)		33A1	1.66
differential screw (right)		33A2	.47
" " bell crank		a33A3	1.26
" " " " plunger		33A4	.04
" " " " " stud		a33A5	.20
" " (left)		33A6	.47
" " key screw (2)		33A7	.07
plunger (2)		33A8	.16
" spring	6176	33A9	.07
CENTERING-PIN MICROMETER SCREW group		**Xa33A**	**6.29**

(For machines prior to 2203 not equipped with Low Quad Device, see Note A8. For machines equipped with Eighteen-point Atachment see Note A8 and Attachment 10CU).

Centering-pin Spring	668	18A2	.16
abutment (lower)		18A1	2.32
CENTERING-PIN SPRING group		**X18A**	**2.48**

(For machines prior to 2203 not equipped with Low Quad Device, see Note A8)

Centering-pin-spring Abutment (upper)		19A1A	*
rod		19A2	*
" nut		19A3	*
CENTERING-PIN-SPRING ABUTMENT group...		**X19A**	**3.30**

*19A1A is assembled with 19A2 and 19A3. Order by complete symbol X19A.

(For machines prior to 2203 not equipped with Low Quad Device, see Note A3)

Centering-pin-spring-abutment Lever (lower, left)		20A1A	*
(lower, right)		20A2A	†
fulcrum pin		20A3	.79
" " nut (2)	35	20A4	.05
" " " washer (2)	419	20A5	.04
stud (for 17A1)	876	20A6	*.04
" (for 17A2)	876	20A8	*.04
" cotter (2)	97	20A7	.00
CENTERING-PIN-SPRING-ABUTMENT LEVER group		**X20A**	**4.93**

*20A1A is assembled with 20A6. Price. 1.98
†20A2A is assembled with 20A8. Price. 1.98

(For machines prior to 2203 not equipped with Low Quad Device, see Note A3)

Centering-pin-spring-abutment Lever (upper, left)		21A1A	*
upper, right)		21A2A	†
fulcrum pin		21A3	.79
" " nut (2)	35	21A4	.05
" " " washer (2)	419	21A5	.04
stud (in 21A1A)		21A6	*.03
" (in 21A2A)		21A7	*.03
CENTERING-PIN-SPRING-ABUTMENT LEVER group		**X21A**	**4.93**

*21A1A is assembled with 21A6. Price. 1.98
†21A2A is assembled with 21A7. Price. 1.98

(For machines prior to 3843 see Note A11)

Centering-pin-spring-abutment-lever Adjusting Screw		22A1	.66
knurled wheel		22A2	.34
" " key		22A3	.01
lock nut (upper)	35	22A4	.05
" " (lower)	310	a22A5	.07
CENTERING-PIN-SPRING-ABUTMENT-LEVER ADJUSTING SCREW group		**X22A**	**1.13**

(For machines prior to 4109 see Note A12)

Centering-pin Stand		a6A	6.60
bolt (2)	19	6A3	.11
" washer (2)	410	6A4	.07
bushing		b6A5	3.96
" adjusting sleeve		6A6	.40
" " nut		6A7	.26
" guide screw		6A8	.07
nut		a6A22	.73
CENTERING-PIN STAND group		**Xc6A**	**12.38**

(For machines prior to 5673 see Note A19)

Cross-beam Lifting Lever		42A1	1.25
fulcrum stud		42A2	.20
" " nut	310	42A3	.07
rocker arm		42A4	3.00
stand		42A5A	*
" cap (2)		42A6	*
" " screw (4)	232	42A7	*.07
" screw (2)	223	42A8	.08
CROSS-BEAM LIFTING LEVER group		**X42A**	**10.00**

*42A5A is assembled with 42A6 and 42A7. Price..... 5.32

Fibre Stop		7A	.40
spring	621	7A1	.07
FIBRE STOP group		**X7A**	**.47**

(For machines prior to 5540 see Note A13)

Lifting-tube Operating Fork		b23A1	2.00
spring	6101	a23A3	.07
" hook		b23A2	.12
LIFTING-TUBE-OPERATING FORK group....		**Xa23A**	**2.19**

(For machines prior to 4113 see Note A14)

Lifting-tube-operating-fork Block		24A3	.29
pin		24A4	.08
rod		b24A5	.04
" eye		24A8	.47
LIFTING-TUBE-OPERATING-FORK BLOCK group		**Xb24A**	**.88**

(For machines prior to 5540 see Note A15)

Lifting-tube-operating-fork Stop		b25A1A	*
spring hook		c25A2	*.25
" " rivet (2)	7199	a25A3	*.01
LIFTING-TUBE-OPERATING-FORK STOP group		**Xa25A**	**2.00**

*b25A1A is assembled with c25A2 and a25A3. Order by the complete symbol Xa25A.

(For Cellular Matrix Cases shipped prior to June, 1912, for Cellular Matrix Cases containing more than one row of .2" x .4" Matrices and for side-hole Matrix Cases, see Note A16. For Eighteen-point Matrix Cases see Attachment 10CU.)

Matrix Case (for Cellular Matrices)		b8AA	*
bar		b8A4	*.07
comb (13)		a8A3	*.26
cover plate		8A1	*3.30
" " screw (4)	2237	a8A2	*.03
shoe (2)		a8A5	*.50
" rivet (16)	7171	a8A6	*.01
spacing comb (right and left) (2)		a8A8	*.60
" " (front and rear) (2)		a8A9	*.35
MATRI CASE group		**Xb8A**	**15.00**

*b8AA is assembled with 8A1, a8A2, a8A3, b8A4, a8A5, a8A6, a8A8 and a8A9. Order by complete symbol Xb8A.

NOTE: MATRIX-CASE SCREWS a8A2 will be furnished in quantity at 66 cents per hundred.

Matrix Case (for Eighteen-point Attachment) see Attachment 10CU..... X38A

Matrix Holder (for casting sorts from cellular Matrices)		40A1A	*
cover plate		40A2	*
" " rivet (7)	7197	40A3	*.03
slide (for .2" x .2" Matrices)		a40A4A	†
" face plate		40A5	†
" " " rivet (5)	7198	40A6	*.01
" latch		a40A8	*.13
" " rivet (2)	7199	40A9	*.01
" matrix support		40A7	†
MATRIX HOLDER group		**X40A**	**12.50**

*40A1A is assembled with 40A2 and 40A3. Price..... 7.70
†a40A4A is assembled with 40A5, 40A6, 40A7, a40A8 and 40A9. Price..... 4.80

NOTE: For special SLIDES for this HOLDER see the following:

For casting sorts from .2″ x .4″ Cellular Matrices order the following for use with the above Holder 40A1A:

Matrix-holder Slide (for .2″ x .4″ Matrices	b40A10A	*	
face plate	a40A11	*	
" " rivet (5)	7198	40A6	*.01
latch	a40A8	*.13	
" rivet	7172	40A9	*.01
matrix support	a40A12	*	

*b40A10A is assembled with 40A, 6a40A8, 40A9, a40A11 and a40A12. Price... 4.80

For casting sorts from .2″ x .6″ Cellular Matrices order the following for use with the above Holder 40A1A:

Matrix-holder Slide (for .2″ x .6″ Matrices	b40A13A	*	
face plate	a40A14	*	
" " rivet (5)	7198	40A6	*.01
latch	a40A8	*.13	
" rivet	7199	40A9	*.01
matrix support	a40A15	*	

*b40A13A is assembled with 40A6, a40A8, a40A9, a40A14 and a40A15. Price.. 4.80

(For special and superseded Holders for Electro Display Matrices see Note A18)

Matrix Holder (for Electro Display Matrices	41A1A	*	
stop pin	7161	41A2	*
slide	41A3A	†	
" bushing	41A4	*.34	
" clamp (long)	a41A5	*3.00	
" " (short)	41A6	*2.00	
" " lever	41A7	*.66	
" " " pin	7177	41A8	*.01
" " spring (3)	6208	41A9	*.08
" cover plate	41A10	*.47	
" " " screw (4)	260	41A11	*.03
" handle	41A12	*.07	
" latch	41A13	*.13	
" " button	41A14	*.07	
" " rivet (2)	7219	41A15	*.01
" spring post (3)	870	41A16	*.05
" matrix abutment (standard)		41A17	*1.75
" " " screw	243	41A18	*.05
MATRIX HOLDER group		X41A	30.00

*41A1A is assembled with 41A2. Price 10.00
†41A3A is assembled with 41A4 to 41A18 inclusive. Price 20.00

For casting 24-point face on 18-point body or on 20-point body order the following for use with the above Holder X41:

Matrix-holder-slide Matrix Abutment	a41A19	1.75	
clamp (long)	b41A20	3.00	
" (short)	a41A21	2.00	

For casting 36-point face on 30-point body, 30-point face on 24-point body or 18-point face on 14-point body order the following for use with the above Holder X41A:

Matrix-holder-slide Matrix Abutment	a41A22	1.75	
clamp (long)	b41A23	3.00	
" (short)	a41A24	2.00	

For casting 14- and 18-point faces on 24-, 30-, or 36-point body order the following for use with the above Holder X41A:

Matrix-holder-slide Matrix Abutment	a41A25	1.75	
clamp (long)	a41A26	3.00	
" (short)	a41A27	2.00	

Mold Oiler

bracket	50A1	†	
" handle	50A2	†	
" " stud	50A3	†	
" " pin	50A4	†	
" plate	50A5	†	
cup	50A6	†	
" cover	50A7	†	
" " bracket	50A8	†	
" " stud	50A9	†	
" " " pin	50A10	†	
sight feed	50A11	†	
" " lock nut	50A12	†	
" " pipe (front)	50A13	†	
" " " (rear)	50A14	†	
wick	50A15	*	
" tube	50A16A	*	
MOLD OILER group		X50A	5.94

*50A16A is assembled with 50A15. Price .53
†No parts of this OILER are furnished separately except 50A16A. If an OILER becomes damaged it may be returned to our factory for repair. Charge will be made for material and labor.

(For machines prior to 4898 see Note A17)

Sliding Frame	b9AA	*	
draw rod	9A1	1.50	
" " clamp	a9A2	*	
" " " screw (front)	2234	b9A3	*.07
" " " " (rear)	243	9A4	*.05
SLIDING FRAME group		Xa9A	17.34

*b9AA is assembled with a9A2, b9A3 and 9A4. Price 15.84

Section B

Mechanism for moving the Matrix Case right and left, positioning the Normal Wedge and Justification Wedges and removing the type after it has been ejected from the Mold.

Air Pin (14)	1B	.26	
spring (14)	69	1B1	.07
AIR PIN group (14) each		X1B	.33

For use with machines on which the Air Pins are worn we furnish:

Air Pin (.0015″ oversize)	a1B2	.26	

(For machines prior to 1843 see Note B1)

Air Pin (fixed, stop for 18-unit row)	a2B	.26	
spring	6119	a2B1	.07
AIR PIN group		Xa2B	.33

For use with machines on which the Air Pins are worn we furnish:

Air Pin (.0015″ oversize)	a2B2	.26	

(For machines prior to 4675 see Note B2)

Air-pin Block (front	d3BB	*	
dowel (left)	51	3B1	.07
" (right)	53	3B2	.07
screw (5-16″ x 1 5-8″) (2)	212	3B3	.10
" (5-16″ x 15-16″)	215	3B4	.10
" (1-4″ x 1 7-16″)	218	3B5	.10
" (1-4″ x 1 1-4″)	219	3B6	.10
" (1-4″ x 7-8″)	222	3B7	.08
plug screw (2)	2235	a3B10	*.03
AIR-PIN BLOCK group		Xc3B	*79.92

*d3BB is assembled with a3B10. Price *79.20
*This AIR-PIN BLOCK can be applied only in our factory.

(For machines prior to 4658 see Note B24)

Air-pin Plate	a4B	6.00	
dowel (2)	56	4B1	.05
screw (4)	223	4B2	.08
AIR-PIN PLATE group		Xa4B	6.42

(For machines prior to 3603 see Note B3)

Matrix Jaw (left)		a5B	4.00

(For machines prior to 3603 see Note B4)

Matrix Jaw (right)		a6B	3.50

(For machines prior to 1703 see Note B5)

Matrix-jaw Latch (in a5B, for 21D)	a7BB	*	
pin	a7B1	*.04	
nut	7B3	.13	
spring	6182	a7B2	.08
MATRIX-JAW LATCH group		X7B	1.71

*a7BB is assembled with a7B1. Price.. 1.50

(For machines equipped with Eighteen-point Attachment see Attachment 10CU)

Matrix-Jaw Shoe	8B	2.98	
screw (top) (2)	218	8B1	.10
" (rear)	219	8B2	.10
MATRIX-JAW SHOE group		X8B	3.28

(For machines prior to 4553 see Note B6. For machines equipped with Eighteen-point Attachment see Attachment 10CU.)

Matrix-jaw-shoe Packing Block (left, large)	b9B	1.98	
dowel	55	9B2	.05
screw (top)	220	a9B3	.10
shoe		a9B4	.26
clamp (lower)		a9B5	.20
" (upper)		a9B6	.13
" screw	231	a9B7	.08
screw (rear)	221	a9B8	.08
" (front)	227	a9B9	.08
MATRIX-JAW-SHOE PACKING BLOCK group		Xb9B	2.96

(For machines equipped with Eighteen-point Attachment see Attachment 10CU.)

Matrix-jaw-shoe Packing Block (left, small)	10B	.47	

Matrix-jaw-shoe Packing Block (right)	11B	.79	
bolt	123	11B1	.07
cover		11B2	.47
" screw	235	11B3	.07
MATRIX-JAW-SHOE PACKING BLOCK group		X11B	1.40

(For machines prior to 5058 see Note B7. For machines equipped with Eighteen-point Attachment see Attachment 10CU.)

Matrix-jaw Stop Rack (front)	b12B1B	*	
lug	b12B2	*	
pin	a12B5	*	
plug	b12B6	*	
spring	6194	b12B7	*.08
" abutment (left)	a12B3	*	
" " (right)	b12B4	*	
MATRIX-JAW STOP RACK group		Xd12B	7.00

*b12B1B is assembled with b12B2, a12B3, b12B4, a12B5, ab13B6 and b12B7. Order by complete symbol Xd12B.
NOTE: We cannot furnish separate parts of this STOP RACK except the SPRING b12B7; instead we exchange repaired STOP RACKS for broken STOP RACKS. Price of exchange is 4.00
This exchange applies only to STOP RACKS returned in such conditon that they can be used again for repaired STOP RACKS. That is, the main piece in which the teeth are cut must not be broken, nor the teeth or other portion so worn or otherwise damaged that it cannot be used again for rebuilding. The LUG, SPRING, or other part may be broken or damaged and still obtain the exchange price, provided all parts whether broken or not are returned with the STOP RACKS.

(For machines prior to 3883 see Note B8. For machines equipped with Eighteen-point Attachment prior to 4415 see Note B26.)

Matrix-jaw-stop-rack Locking Bar (front)	d13B	2.64	
connecting bar	a13B4	.79	
spring	6180	a13B5	.07
MATRIX-JAW-STOP-RACK LOCKING BAR group		Xd13B	3.50

(For machines prior to 963 see Note B9. For machines equipped with Display Type Attachment see Note E45 and Attachment 10CU.)

Normal-wedge Locking Pin	b14B	2.64	
adjusting nut	310	14B1	.07
" " lock nut	312	14B2	.07
bushing	a14B3	3.96	
" adjusting sleeve	14B4	.40	
" " nut	14B5	.26	
" guide screw	a14B6	.07	
shank	a14B7	.26	
spring	669	b14B8	.26
" abutment (upper)	14B10	.79	
NORMAL-WEDGE LOCKING PIN group		Xb14B	8.78

(For machines prior to 9843 see Note B10)

Normal-wedge-locking-pin Stand	c15B	19.80	
bolt (3-16″ x 9-16″)	124	15B1	.07
dowel (2)	55	15B2	.05
screw (1-4″ x 7-8″)	222	15B3	.08
" (1-4″ x 5-8″)	223	15B4	.08
" (3-16″ x 1-2″) (2)	233	15B6	.07
NORMAL-WEDGE-LOCKING-PIN STAND group		Xc15B	20.27

Pin Jaw (left)	16BB	*	
stud (for Xa55E)	835	16B1	*.11
" nut	35	16B2	.05
" washer	417	16B3	.07
PIN JAW group		X16B	2.62

*16BB is assembled with 16B1. Price.. 2.50

Pin Jaw (right)	17BB	*	
stud (for Xa55E)	835	17B1	*.11
" nut	35	17B2	.05
" washer	417	17B3	.07
PIN JAW group		X17B	2.62

*17BB is assembled with 17B1. Price.. 2.50

(For machines prior to 4527 see Note B11)

Pin-jaw Guide Rod	18B	1.50	
screw	a18B1	.03	
PIN-JAW GUIDE ROD group		Xa18B	1.53

(For machines prior to 4658 see Note B23)

Pin-jaw-guide-rod Stand (right)	36B1	1.19	
nut	310	36B2	.07
PIN-JAW-GUIDE-ROD group		X36B	1.26

Pin-jaw-guide-rod Stop		19B	.11

(For machines prior to 4608 see Note B12)

Type Carrier	d20BB	*	
bushing	458	a20B10	*.07
lever (for b31B)		d20B3	*2.75
" pin		b20B4	*.10
" " cotter	95	a20B9	*.00
" stand		b20B1	*1.98
" " rivet (2)	7104	a20B2	*.01
" (for d26B)		a20B11	*.66
" pin	7161	a20B12	*.01
shield		a20B5	*.07
" screw (2)	252	20B6	*.03
TYPE CARRIER group, including EYE 21B1B, CLAMP Xd26B, SHOE Xc27B and SPRING Xc31B		Xd20B	47.24

*d20BB is assembled with b20B1, a20B2, d20B3, b20B4, a20B5, 20B6, 120B9, a20B10 a20B11, a20B12, 21B1B, Xd26B, Xc27B and Xc31B. Order by complete symbol Xd20B.

Type-carrier Connecting Rod	21B	.20	
forked eye (Carrier end)	21B1B	*	
" " lock nut (L. H.)	21B2	.07	
" " pin	21B3	*	
" " dowel	58	21B4	*.04
" " (Cam Lever end)		a21B5	1.32
" " lock nut	316	21B6	.07
" " pin		21B7	.10
" " " cotter	93	21B8	.00
spring	615	21B9	.24
" abutment		21B10	.26
sleeve		21B11	.34
TYPE-CARRIER CONNECTING ROD group		Xa21B	3.60

*21B1B is assembled with 21B3 and 21B4. Price 1.00

(For machines prior to 4368 see Note B13)

Type-carrier Extension	a22B	.47	
lock nut	310	22B1	.07
sleeve	a22B2	.13	
spring	616	22B4	.26
TYPE-CARRIER EXTENSION group		X22B	.93

(For machines prior to 4608 see Note B14)

Type-carrier Shoe (long)	b23BB	*	
screw (right and center) (2)	222	23B1	.08
" (left)	227	23B2	.08
cam (front)	a23B3	*	
" (rear)	a23B4	*	
" rivet (lower)	7206	a23B5	*.01
" " (right)	721	a23B6	*.01
" " (center, left) (2)	7207	a23B7	*.01
TYPE-CARRIER SHOE group		Xb23B	2.88

*b23BB is assembled with a23B3 to a23B7 inclusive. Price 2.64

(For machines prior to 4608 see Note B15)

Type-carrier Shoe (short)	b24B	.34	
screw (2)	221	24B1	.08
plate (trip for d26B)	a24B2	.66	
TYPE-CARRIER SHOE group		Xb24B	1.16

(For machines prior to 520 see Note B16)

Type-carrier-spring-abutment Stand	a25B	1.26	
screw (front) (2)	221	25B1	.08
" (top)	223	25B2	.08
TYPE-CARRIER-SPRING-ABUTMENT STAND group		Xa25B	1.50

(For machines prior to 4608 see Note B17)
Type Clamp d26B 4.00
extension ..... b26B1 .13
spring ..... 6109.. a26B2 .07
TYPE CLAMP group **Xd26B 4.20**

(For machines prior to 4608 see Note B18)
Type-clamp Shoe ..... c27B .66
screw (3) ..... 260.. a27B1 .03
TYPE-CLAMP SHOE group ..... **Xc27B .75**

(For machines prior to 3883 see Note B19)
Type Pusher ..... b29BB *
blade ..... b29B1 *
" rivet (head end) (2) ..... 732.. 29B2 *.01
" " (eye end, long) ..... 7104.. 29B3 *.01
" " " short) ..... 732.. 29B4 *.01
eye ..... a29B5 *
" pin ..... 29B6 .11
" " cotter ..... 94.. 29B7 .00
TYPE PUSHER group **Xb29B 8.11**
*b29BB is assembled with b29B1, 29B2, 29B3 29B4 and 29B5. Price 8.00

(For machines prior to 1203 see Note B20)
Type-pusher Guide a28B 2.64
screw ..... 236.. 28B1 .07
cover ..... a28B2 .20
" screw (2) ..... 250.. a28B3 .04
TYPE-PUSHER GUIDE group **Xa28B 2.99**

Type-pusher Guiding Lever, see Note B21...X30B

(For machines prior to 4608 see Note B22)
Type Support Spring ..... b31B *.34
bar ..... f31B1B *
" rivet (2) ..... 7208.. a31B2 *.01
" spring ..... 6110.. a31B6 .07
" yoke c31B4 1.00
" extension ..... a31B7 .34
TYPE SUPPORT SPRING group **Xc31B 2.61**
*f31B1B is assembled with b31B and a31B2. Price 1.20

Section C

Mechanism for moving the Matrix Case forward and back, drawing the Mold Blade back for the proper size type body, and ejecting the type from the Mold.

Air Pin (14) ..... 1C .26
spring (14) ..... 69.. 1C1 .07
AIR PIN group (14) each ..... **X1C .33**
For use with machines on which the Air Pins are worn we furnish:
Air Pin (.0015" oversize) ..... a1C2 .26

(For machines prior to 1843 see Note C1)
Air Pin (fixed, stop for front row) ..... a2C .26
spring ..... 6119.. a2C1 .07
AIR PIN group ..... **Xa2C .33**

For use with machines on which the Air Pins are worn we furnish:
Air Pin (.0015") oversize) ..... a2C2 .26

(For machines prior to 3883 see Note C2)
Air-pin Block (rear) ..... b3C ■66.00
dowel (No. 6 x 2 1-2") ..... 51.. 3C1 .07
" (No. 6 x 2") ..... 52.. 3C2 .07
" (No. 5 x 1 1-4") ..... 56.. 3C3 .05
screw (5-16" x 1 5-8") (2) ..... 212.. 3C4 .10
" (5-16" x 2 1-2") (2) ..... 211.. 3C5 .12
" (1-4" x 5-8") (2) ..... 223.. 3C6 .08
spring post ..... 896.. b3C7 .08
AIR-PIN BLOCK group ..... **Xb3C ■66.87**
■This AIR-PIN BLOCK can be applied only in our factory.

(For machines prior to 703 see Note C3)
Air-pin Plate a4C 10.00
dowel (2) ..... 56.. 4C1 .05
screw (4) ..... 223.. 4C2 .08
AIR-PIN PLATE group **Xa4C 10.42**

(For machines prior to 5293 see Note C4)
Cross Slide ..... c5CC *
draw rod b5C1 1.50
" " clamp screw ..... 223.. a5C2 *.08
extension ..... a5C3 *
" rivet (long) ..... 7228.. 5C4 *.07
" " (short) ..... 7179.. a5C7 *.03
plate (stop for Matrix Case) ..... a5C9 *
" rivet (long) (2) ..... 7207.. a5C10 *.01
" " short() ..... 721.. a5C11 *.01
CROSS SLIDE group **Xd5C 12.50**
*c5CC is assembled with a5C2, a5C3, 5C4, a5C7 a5C9, a5C10 and a5C11. Price 11.00

Cross-slide-extension Shoe ..... 6CC *
screw (4) ..... 234.. 6C1 .07
spring post ..... 851.. 6C2 *.05
CROSS-SLIDE-EXTENSION SHOE group **X6C 2.26**
*6CC is assembled with 6C2. Price ... 1.98

(For machines not equipped with Low Quad Molds, see Note C5)
Cross-slide Guide a7C 6.60
cover plate ..... 7C1 .53
screw (4) ..... 233.. 7C2 .07
CROSS-SLIDE GUIDE group **Xa7C 7.41**

(For machines prior to 3603 see Note C6)
Matrix Jaw (front) **a8C 2.50**

(For machines prior to 3603 see Note C7)
Matrix Jaw (rear) **a9C 2.50**

(For machines prior to 3883 see Note C8)
Matrix-jaw Stop (front) ..... b10C .40
rivet (2) ..... 7224.. a10C1 .03
MATRIX-JAW STOP group ..... **Xb10C .46**

(For machines prior to 3883 see Note C9)
Matrix-jaw Stop (rear) ..... b11C .60
screw (2) ..... 219.. 11C1 .10
MATRIX-JAW STOP group ..... **Xb11C .80**

(For machines prior to 5008 see Note C10. For machines equipped with Eighteen-point Attachment see Attachment 10CU.)
Matrix-jaw Stop Rack (rear) ..... c12C1C *
lug ..... b12C2 *
pin ..... a12C5 *
plug ..... b12C6 *
spring ..... 6194.. b12C7 *.08
" abutment (rear) ..... a12C3 *
" " (front) ..... b12C4 *
MATRIX-JAW STOP RACK group **Xd12C 7.00**
*c12C1C is assembled with b12C2, a12C3, b12C4, a12C5, b12C6 and b12C7. Order by complete symbol Xd12C.
NOTE: We cannot furnish separate parts of this STOP RACK except the SPRING b12C7; instead we exchange repaired STOP RACKS for broken STOP RACKS. Price of exchange is 4.00
This exchange applies only on STOP RACKS returned in such condition that they can be used again for repaired STOP RACKS. That is, the main piece in which the teeth are cut must not be broken, nor the teeth or other portion so worn or otherwise damaged that it cannot be used again for rebuilding. The LUG, SPRING, or other part may be broken or damaged and still obtain the exchange price, provided all parts whether broken or not are returned with the STOP RACK.

(For machines prior to 3883 see Note C11. For machines equipped with Eighteen-point Attachment prior to 4415 see Note C19.)
Matrix-jaw-stop-rack Locking Bar (rear) c13C 1.98
connecting rod a13C4 1.66
" " adjusting nut ..... a13C5 .34
" " lock nut ..... 316.. a13C6 .07
" " washer ..... 410.. a13C7 .07
spring ..... 6179.. a13C8 .07
" abutment pin ..... a13C9 .20
stop washer ..... 457.. a13C10 .07
yoke a13C11 2.64
MATRIX-JAW-STOP-RACK LOCKING BAR group **Xc13C 7.10**

(For machines prior to 3966 see Note C12)
Mold-blade Abutment Slide ..... b14CC *
adjusting screw b14C1 *1.00
" " lock spring ..... a14C10 *.20
" " nut ..... a14C12 *.20
" " spring (spiral) ..... 6174.. a14C13 *.07
anvil a14C3 *1.66
" plunger ..... 14C5 *.47
" " spring (3) ..... 699.. 14C6 *.07
" screw (2) ..... 247.. 14C7 *.04
pin (for a14C10) ..... a14C11 *.03
spring post ..... 14C8 *.04
MOLD-BLADE ABUTMENT SLIDE group **Xb14C 13.20**
*b14CC is assembled with b14C1, a14C3, 14C5 to 14C8 inclusive, a14C10 to a14C13 inclusive. Order by complete symbol Xb14C.

Mold-blade-abutment-slide Spring 612.. **15C .08**

(For machines prior to 4658 see Note C13. For machines equipped to operate Style LF Lead Mold see Attachment 13CU.)
Mold-blade Operating Rod a16C 1.32
distance sleeve (between 16C3 and 16C13) ..... a16C1 .20
ejecting spring (long) ..... 6186.. a16C2 .28
" " (short) ..... 6187.. a16C17 .20
" " abutment ..... 16C3 .34
" " sleeve ..... b16C4 .26
fork b16C5 3.50
" pin ..... a16C6 .66
" " spring ..... b16C7 .13
" " " screw (2) ..... 247.. 16C8 .04
nut (rear) ..... 310.. 16C9 .07
" lock nut ..... 312.. a16C15 .07
" (front) ..... a16C16 .50
sizing spring ..... 613.. 16C10 .26
" " sleeve (inside) ..... a16C11 .20
" " " (outside) ..... a16C12 .20
" " abutment (front) ..... 16C13 .20
" " " (rear) ..... 16C14 .20
MOLD-BLADE OPERATING ROD group **Xb16C 8.67**

Normal-wedge Abutment (on b3C) 17C 1.98
dowel (2) ..... 57.. 17C1 .04
screw (2) ..... 236.. 17C2 .07
NORMAL-WEDGE ABUTMENT group **X17C 2.20**

(For machines prior to 3883 see Note C14)
Pin Jaw (front) ..... a18CC *
stud (for X56E) ..... 835.. 18C1 *.11
" nut ..... 35.. 8C2 .05
" washer ..... 417.. 18C3 .07
PIN JAW group **Xa18C 2.62**
*a18CC is assembled with 18C1. Price assembled 2.50

Pin Jaw (rear) ..... 19CC *
stud (for X56E) ..... 835.. 19C1 *.11
" nut ..... 35.. 19C2 .05
" washer ..... 417.. 19C3 .07
PIN JAW group **X19C 2.62**
*19CC is assembled with 19C1. Price assembled 2.50

(For machines prior to 4658 see Note C17)
Pin-jaw Guide Rod a20C 1.50
screw ..... a20C1 .03
PIN-JAW GUIDE ROD group **X20C 1.53**

Pin-jaw-guide-rod Stand (front) 22C 1.19
nut ..... 310.. 22C1 .07
PIN-JAW-GUIDE-ROD STAND group **X22C 1.26**

Pin-jaw-guide-rod Stand (rear) ..... 23CC *
clamp screw ..... 232.. 23C1 *.07
nut ..... 310.. 23C2 .07
PIN-JAW-GUIDE-ROD STAND group **X23C 1.39**
*23CC is assembled with 23C1. Price assembled 1.32

(For machines prior to 3883 see Note C15.)
Pin-jaw-guide-rod Stop ..... 456.. **a21C .05**

(For machines prior to 3613 see Note C16)
Wedge Cover ..... 24C .40
screw ..... 250.. 24C1 .04
WEDGE COVER group ..... **X24C .44**

Section D

Mechanism for bringing the Space Transfer Wedge into position when casting justifying spaces, disconnecting the Pump while the Justifying Wedges are shifted, and starting the Galley Mechanism into action.

Air Pin (justification, right and left) (2), each ..... **1D .34**

For use with machines on which the AIR PINS are worn we furnish:

Air Pin (justification) (.0015" oversize) .... a1D1 .34

Air Pin (space, center) ..... **2D .34**

For use with machines on which the AIR PINS are worn we furnish:

Air Pin (space) (.0015" oversize) ..... a2D1 .34

(For machines prior to 4173 see Note D1)
Air-pin Block (justification) c3D 26.40
cover plate a3D1 1.32
" " screw ..... 233.. 3D2 .07
" " " (long) (2) ..... 3D3 .07
dowel (2) ..... 55.. 3D4 .05
screw (4) ..... 216.. 3D5 .10
set screw (for 7D) ..... 249.. a3D12 .04
shoe (for d13B) ..... b3D6 .13
" screw (2) ..... 233.. a3D7 .07
stud ..... 3D8 .26
" nut ..... 310.. 3D9 .07
" washer ..... 414.. 3D10 .07
AIR-PIN BLOCK group **Xb3D 29.14**

Bell Crank (center, for 57D) ..... 4DD *
abutment screw (for 2D) ..... 2185.. 4D1 *.04
" " lock nut ..... 33.. 4D2 *.05
stop screw ..... 2184.. 4D3 *.04
" " lock nut ..... 33.. 4D4 *.05
BELL CRANK group **X4D 1.50**
*4DD is assembled with 4D1 to 4D4 inclusive. Order by complete symbol X4D.

Bell Crank (left, for 15D) ..... 5DD *
abutment screw (for 1D) ..... 2185.. 5D1 *.04
" " lock nut ..... 33.. 5D2 *.05
stop screw ..... 2184.. 5D3 *.04
" " lock nut ..... 33.. 5D4 *.05
BELL CRANK group **X5D 1.50**
*5DD is assembled with 5D1 to 5D4 inclusive. Order by complete symbol X5D.

Bell Crank (right, for 15D) ..... 6DD *
abutment screw (for 1D) ..... 2185.. 6D1 *.04
" " lock nut ..... 33.. 6D2 *.05
stop screw ..... 2184.. 6D3 *.04
" " lock nut ..... 33.. 6D4 *.05
BELL CRANK group **X6D 1.50**
*6DD is assembled with 6D1 to 6D4 inclusive. Order by complete symbol X6D.

(For machines prior to 923 see Note D2)
Bell-crank Fulcrum Pin ..... **7D .07**

(For machines prior to 1923 see Note D3)
Galley Trip Rod ..... a8D .50
nut ..... 310.. 8D1 .07
GALLEY TRIP ROD group ..... **Xa8D .57**

(For machines prior to 1923 see Note D4)
Galley-trip-rod Arm a9D 2.00
rock lever ..... 9D1 .47
" " fulcrum pin ..... 9D2 .08
" " " nut ..... 35.. 9D3 .05
GALLEY-TRIP-ROD ARM group **Xa9D 2.60**

(For machines equipped with Eighteen-point Attachment see Attachment 10CU)
Justification Wedge (front or .0075") **10D 6.60**
Regrinding and testing worn JUSTIFICATION WEDGE 3.25

(For machines equipped with Eighteen-point Attachment see Attachment 10CU)
Justification Wedge (rear or .0075") **11D 6.60**
Regrinding and testing worn JUSTIFICATION WEDGE 3.25

Justification-wedge Centering Tooth 12D 1.98
screw (2) ..... 241.. 12D1 .05
JUSTIFICATION-WEDGE CENTERING TOOTH group **X12D 2.08**

Justification-wedge Lever (for 11D) ..... 13DD *
pin (for 15D) ..... 838.. 13D1 *.08
" cotter ..... 95.. 13D2 .00
plate ..... 13D3 *.05
" screw ..... 245.. 13D4 *.05
JUSTIFICATION-WEDGE LEVER group **X13D 3.30**
*13DD is assembled with 13D1 to 13D4 inclusive. Order by complete symbol X13D.

Justification-wedge Lever (for 10D)..... 14DD *
pin (for 15D)..... **838**.. 14D1 ★.08
" cotter..... **95**.. 14D2 .00
plate..... 14D3 ★.05
" screw..... **245**.. 14D4 ★.05
JUSTIFICATION-WEDGE LEVER group..... **X14D 3.30**
*14DD is assembled with 14D1 to 14D4 inclusive. Order by complete symbol X14D.

Justification-wedge-lever Arm (2)..... 15D .53
adjusting nut (2)..... 15D1 .08
" " lock nut (2)..... **33**.. 15D2 .05
rod (2)..... **839**.. 15D3 .13
JUSTIFICATION-WEDGE-LEVER ARM group (2) each..... **X15D .79**

Justification-wedge-lever-arm Spring (2) each..... **614**.. **16D .07**

Justification-wedge-lever-arm-spring Plate..... **17D .04**

Justification-wedge-lever Fulcrum Pin.. **18D .05**

Justification-wedge Stop Block..... 19D .34
screw..... **219**.. 19D1 .10
JUSTIFICATION-WEDGE STOP BLOCK group... **X19D .44**

(For machines prior to 503 see Note D5)
Micrometer Wedge..... 20D 3.30
adjusting screw..... a20D2 .34
" " spring..... a20D3 .11
" " " screw (2)..... **248**.. 20D4 .04
shank..... a20D1 .13
" nut..... **35**.. a20D5 .05
" spring..... **635**.. 20D7 .07
MICROMETER WEDGE group..... **Xa20D 4.08**

(For plants using side-hole Matrices see Note D6. For machines equipped with Eighteen-point Attachment see Attachment 10CU).
Normal Wedge (regular, any set)..... **21D 9.50**
NOTE: When ordering a NORMAL WEDGE to replace a WEDGE give, in addition to the set, the symbol stamped on the left end (operating position) of the WEDGE; for example, S5, S15, etc.
NOTE: If a regular NORMAL WEDGE 21D becomes worn so that it does not give the correct width type bodies in all positions, it should be returned to our factory to be reground and tested. Price for regrinding and testing..... 4.75

Normal-wedge Protection Plate, see Note D7..... 64D

Pump-trip Operating Lever (2)..... 48DD *
fulcrum pin..... 48D1 .11
" " cotter..... **95**.. 48D2 .00
separating Pin (2)..... 48D3 ★.03
PUMP-TRIP OPERATING LEVER group..... **X48D 1.30**
*48DD is assembled with 8D3. Price.. 1.19

(For machines prior to 535 see Note D8)
Pump-trip Tube..... a49DD *
collar..... 49D1 .47
" set screw..... **122**.. 49D2 .08
spring post..... **840**.. 49D3 ★.04
PUMP-TRIP TUBE group..... **Xa49D 1.61**
*a49DD is assembled with 49D3. Price 1.06

Pump-trip Spring..... **628**.. 50D .16
plate (2)..... 50D1 .04
PUMP-TRIP SPRING group..... **X50D .24**

Pump-trip-tube-spring Post (in a36EE)..... **893**.. **51D .04**

(For machines prior to 1013 see Note D9)
Space Transfer Wedge..... a52D 4.62
adjusting screw..... 52D1 1.00
" " lock nut..... 52D2 .07
SPACE TRANSFER WEDGE group..... **Xa52D 5.69**
Regrinding and testing worn SPACE TRANSFER WEDGE is..... 2.50

(For machines prior to 1013 see Note D10)
Space-transfer-wedge Operating Rod... a53DD *
nut..... **33**.. 53D1 .05
" lock nut..... **34**.. 53D2 .05
washer (rawhide)..... 53D3 .07
yoke..... a53D4 ★.34
SPACE-TRANSFER-WEDGE OPERATING ROD group..... **Xa53D 2.92**
*a53DD is assembled with a53D4. Price 2.75

Transfer Tongs
cam lever extension..... 59D1D *
lower connecting link (2)..... 59D2 *
" " " bushing (2)..... 59D3 *
upper connecting link (2)..... 59D4 *
" " " pin (in 59D1D)... 59D5 *
" " " separating block... 59D6 *
" " " " " bus. 59D7 *
" " " " " " rivet (2)..... **735**.. 59D8 *
space wedge lever (2)..... a59D9 *
" " " bushing (2)..... a59D18 *
" " " crosshead..... a59D10 *
" " " eye (on 60D6D)..... 59D11 *
" " " separating pin (3) **742**.. 59D12 *
type wedge lever (2)..... a59D13 *
" " " bolt (for 59D4)... **120**.. 59D14 .10
" " " nut..... **310**.. 59D15 .07
" " " bushing (2)..... a59D19 *
" " " crosshead..... a59D16 *
" " " separating pin (2).. **742**.. 59D17 *
TRANSFER TONGS group..... **X59D 26.40**
*We cannot furnish separate parts of these TONGS, except those for which a price is given. Instead we exchange repaired for worn TONGS. Price for exchange..... 13.20

Transfer-wedge-operating-rod Guide.... 54D 3.64
cap..... 54D1 .20
" screw (2)..... **247**.. 54D2 .04
screw (2)..... **223**.. 54D3 .08
TRANSFER-WEDGE-OPERATING-ROD GUIDE group..... **X54D 4.08**

Transfer-wedge Shifter..... 55D 1.98
spring (inside)..... **64**.. 55D1 .11
" (outside)..... **65**.. 55D2 .12
" abutment (lower)..... 55D3 .20
" " (upper)..... 55D4 .20
nut..... **310**.. 55D5 .07
TRANSFER-WEDGE SHIFTER group..... **X55D 2.68**

Transfer-wedge-shifter Lever..... 56D 1.06
fulcrum screw..... 56D1 .13
TRANSFER-WEDGE-SHIFTER LEVER group... **X56D 1.19**

Transfer-wedge-shifter-lever Arm..... 57D .53
adjusting nut..... 57D1 .11
" " lock nut..... **33**.. 57D2 .05
fulcrum pin (for 56D)..... 57D3 .03
rod..... **839**.. 57D4 .13
TRANSFER-WEDGE-SHIFTER-LEVER ARM group..... **X57D .85**

Transfer-wedge-shifter-lever-arm Spring ..... **614**.. **58D .07**

Transfer-wedge Spring Box
tube..... 60D1 .92
cap..... 60D2 .40
forked eye..... 60D3 .66
" " pin..... 60D4 .07
" " " cotter (2)..... **95**.. 60D5 .00
rod..... 60D6D *
" head..... 60D7 *
" adjusting nut (for 60D12 and 60D13) ..... **310**.. 60D8 .07
rod adjusting nut lock nut..... **312**.. 60D9 .07
lock nut (for 59D11)..... **310**.. 60D10 .07
spring abutment (2)..... 60D11 .08
" (inside)..... **618**.. 60D12 .26
" (outside)..... **617**.. 60D13 .26
TRANSFER-WEDGE SPRING BOX group..... **X60D 3.20**

*60D6D is assembled with 60D7. Price .26

Transfer-wedge-spring-box Stand..... 61D 1.06
screw (2)..... **215**.. 61D1 .10
TRANSFER-WEDGE-SPRING-BOW STAND group **X61D 1.26**

Type Transfer Wedge..... 62D **4.62**
Regrinding and testing worn TYPE TRANSFER WEDGE..... 2.50

Type-transfer-wedge Operating Rod.... 63DD *
nut..... **33**.. 63D1 .05
" lock nut..... **34**.. 63D2 .05
pin..... 63D3 ★.25
washer (rawhide)..... 63D4 .07
TYPE-TRANSFER-WEDGE OPERATING ROD group..... **X63D 2.92**
*63DD is assembled with 63D3. Price. 2.75

Section E

Mechanism for receiving power from the belt and transmitting it to the various portions of the machine (includes also the piping in the Main Stand and the piping for the control mechanisms on certain attachments).

(For machines prior to 4163 see Note E1)
Base..... a1E 198.00
hinge (for Door) (2)..... a1E1 .26
" nut (2)..... **319**.. a1E2 .08
button "ON"..... a1E3 .05
" "OFF"..... a1E4 .05
BASE group..... **Xa1E 198.78**

(For machines equipped with Speed Regulating Attachment see Note E2)
Belt Shifter Arm (front)..... 2E 1.32
clamp screw..... **213**.. 2E1 .10
BELT SHIFTER ARM group..... **X2E 1.42**

(For machines equipped with Display Type Attachment or Cam Oiling Device and Motor driven see Note E3)
Belt Shifter Arm (rear, carrying 4E)..... 3E 1.32
clamp..... 3E2 .26
" bolt..... **118**.. 3E3 .11
set screw..... **116**.. 3E1 .10
BELT SHIFTER ARM group..... **X3E 1.79**

(For machines equipped with Display Type Attachment and Cone Pulleys see Note E4)
Belt Shifter Eye..... **4E 1.66**

(For machines equipped with Speed Regulating Attachment see Note E3)
Belt Shifter Ring..... 5E 4.30
clamp screw..... **213**.. 5E1 .10
guide pin..... 5E2 .20
BELT SHIFTER RING group..... **X5E 4.60**

(For machines equipped with Speed Fegulating Attachment see Note E3)
Belt-shifter-ring Rod..... 6E 1.19
fibre washer..... 6E1 .07
spring..... **620**.. 6E2 .60
BELT-SHIFTER-RING ROD group..... **X6E 1.86**

Cam-lever Shaft (front, for 72EE, 67EE and 70EE)..... **7E 1.85**

Cam-lever Shaft (rear, for 53EE, 44EE and 76EE)..... 8E 1.58
cotter..... **92**.. 8E1 .00
set screw..... 8E2 .13
washer..... **41**.. 8E3 .13
CAM-LEVER SHAFT group..... **X8E 1.84**

(For machines prior to 520 see Note E5)
Cam-lever-shaft Stand
(for a14EE and a24EE)..... a9E 26.40
bolt (4)..... **14**.. 9E1 .13
CAM-LEVER-SHAFT STAND group..... **Xa9E 26.92**

(For machines prior to 3863 see Note E6)
Cam Shaft (driving)..... 10E 15.84
cam key..... 10E1 .20
key (for 64E)..... 10E3 .07
nut (for 64E)..... **332**.. 10E4 .16
gear (graduated)..... 10E5 6.60
" key..... 10E6 .13
CAM SHAFT Xd10E, see note under CAM SHAFT Xa11E.

(For machines prior to 3863 see Note E6)
Cam Shaft (driven)..... 11E 14.20
cam key..... 11E1 .20
distance ring..... 11E2 1.00
gear..... 11E3 5.94
" key..... 11E4 .13
CAM SHAFT Xa11E, see note below.
NOTE: CAM SHAFTS are furnished only in pairs, that is, Xd10E and Xa11E complete with the following CAMS in place: X71E, X66E, X69E, Xa13E, c86E, X23E, X52E, X43E, X75E, Price per pair..... 111.00
Should it be necessary to replace a pair of CAMS the two SHAFTS Xd10E and Xa11E must be returned to our factory. No charge other than for the parts used in made for repairing CAM SHAFTS.

(For machines prior to 2647 see Note E7. For machines equipped with Speed Regulating Attachment see Note E7 and Attachment 9CU.)
Cam-shaft Stand..... a12EE *
cap (front, right)..... 12E1 *
" (rear, left)..... 12E2 *
" (rear, right)..... a12E15 *
" (front, left)..... a12E16 *
" screw (for 12E1, 12E2, a12E15 and a12E16) (16)..... **27**.. 12E3 ★.11
" (front, for 7E)..... 12E4 *
" (rear, for 7E)..... 12E5 *
" pin (in 12E4)..... 12E6 ★.04
" screw (for 12E4 and 12E5) (4).. **214**.. 12E7 ★.10
" (for 80EE)..... 12E8 *
" screw (for 12E8) (4)..... **214**.. 12E9 ★.10
oil pipe (2)..... 12E11 ★.13
screw (7-16″ x 1 1-8″) (4)..... **26**.. 12E12 .12
" (7-16″ x 1 3-8″) (4)..... **25**.. 12E13 .12
winkley oiler (7)..... 12E14 ★.20
CAM-SHAFT STAND group..... **Xa12E 132.96**
*a12EE is assembled with 12E1 to 12E9 inclusive, 12E11, 12E14, a12E15 and a12E16. Price..... 132.00

(For machines prior to 3748 see Note E43)
Cam-shaft-stand Packing Piece (2) each) **168E1 .07**

(For machine sprior to 502 see Note E8)
Centering-pin Cam (driving, marked D in circle)..... a13EE *
(driven, marked D in square)..... a13E1 *
CENTERING-PIN CAM group..... **Xa13E 7.50**
*CAMS can be furnished only in pairs. When a pair of CAMS is to be replaced, the SHAFTS complete with all their CAMS must be returned to our factory. When ordering CAMS use the complete symbol.

(For machines prior to 520 see Note E9)
Centering-pin-cam Lever..... a14EE *
roller..... 14E3 ★.50
" pin..... 14E4 ★.20
set screw..... 14E5 .13
CENTERING-PIN-CAM LEVER group..... **Xa14E 19.93**
*a14EE is assembled with 14E3 and 14E4 Price..... 19.80

For use with machines on which the Cams are worn we furnish:
Centering-pin-cam Lever roller (.015″ oversize)..... a14E6 .50
Centering-pin-cam Lever roller (.030″ oversize)..... a14E7 .50

(For machines equipped with Rule Mold Operating Attachment see Note E63)
Centering-pin-cam-lever Shaft..... **15E 1.58**

(For machines prior to 2322 see Note E10)
Centering-pin Lever..... a16EE *
screw (to a14EE) (3)..... **27**.. 16E1 .11
plate (for 15D3 and 57D4)..... 16E2 .07
" screw (2)..... **241**.. 16E3 .05
" (for 15D1 and 57D1)..... a16E6 ★.40
" rivet (2)..... **7162**.. a16E7 ★.03
stud (for 2A1)..... 16E4 ★.07
" cotter..... **95**.. 16E5 .00
CENTERING-PIN LEVER group..... **Xa16E 17.66**
*a16EE is assembled with 16E4, a16E6 and a16E7. Price..... 17.16

Door..... 17EE *
hinge pin (2)..... 17E1 ★.07
knob..... 17E2 ★.40
latch..... 17E3 ★.34
DOOR group..... **X17E 5.94**
*17EE is assembled with 17E1, 17E2 and 17E3. Order by complete symbol X17E.

For machines equipped with Speed Regulating Attachment see Attachment 9CU)
Gear Cover (front)..... 19E 5.94
screw (lower)..... **223**.. 19E1 .08
" (upper)..... **219**.. 19E2 .10
GEAR COVER group..... **X19E 6.12**

Gear Cover (rear) for Speed Regulating Attachment, see Attachment 9CU..... X107E

Gear Vernier 20E 1.66
screw (2) ..... **247**.. 20E1 .04
GEAR VERNIER group **X20E 1.74**

(For machines prior to 4063 see Note E11)
Jaw-tongs Bell Crank (lower) ..... a21EE *
ball stud ..... **848**.. a21E1 ★.40
stud (short) ..... 21E6 .34
" nut (lower) ..... **322**.. 21E7 .10
" " (upper) ..... **310**.. 21E8 .07
" washer ..... **414**.. 21E9 .07
(upper) ..... b21E10E †
ball stud ..... **848**.. a21E11 ★.40
stud (long) ..... 21E2 .40
" nut (lower) ..... **322**.. 21E3 .10
" " (upper) ..... **310**.. 21E4 .07
" washer ..... **414**.. 21E5 .07
JAW-TONGS BELL CRANK group **Xb21E 26.30**
*a21EE is assembled with a21E1. Price 13.20
†b21E10E is assembled with a21E11. Price 11.88

Jaw-tongs-bell-crank Fulcrum Stud 22E 1.32
nut (lower) ..... **329**.. 22E1 .14
" (upper) ..... **327**.. 22E2 .11
washer ..... **43**.. 22E3 .10
JAW-TONGS-BELL-CRANK FULCRUM STUD group **X22E 1.67**

Jaw-tongs Cam (driving, marked E-2 in circle) ..... 23EE *
(driven, marked E-2 in square) ..... 23E1 *
JAW-TONGS CAM group **X23E 7.50**
*CAMS can be furnished only in pairs. When a pair of CAMS is to be replaced, the SHAFTS complete with all their CAMS must be returned to our factory. When ordering CAMS use the complete symbol.

(For machines prior to 520 see Note E12)
Jaw-tongs-cam Lever ..... a24EE *
clamp bolt (for a26E1) (2) ..... **15**.. 24E2 .12
roller ..... 24E5 ★.55
" pin ..... 24E6 ★.20
adjusting screw (for a26E1) ..... a24E7 .26
" " lock nut ..... **320**.. a24E8 .08
JAW-TONGS-CAM LEVER group **Xa24E 19.72**
*a24EE is assembled with 24E5 and 24E6. Price 19.14

For use with machines on which the Cams are worn we furnish:
Jaw-tongs-cam Lever roller (.015″ oversize) a24E9 .55
" " " " " (.030″ oversize) a24E10 .55

Jaw-tongs-cam-lever Shaft ..... 25E .60
set screw ..... 25E1 .13
JAW-TONGS-CAM-LEVER SHAFT group ..... **X25E .73**

(For machines prior to 2015 see Note E13)
Jaw-tongs Spring Box
ball extension a26E1 2.50
" socket (left bearing for Ball) a26E2 2.75
" " guide pin ..... **721**.. a26E3 .01
" " plug ..... a26E4 .60
" " " button ..... a26E5 .66
" plug (right bearing for Ball) a26E6 1.25
" " nut ..... **316**.. a26E7 .07
" " washer ..... a26E8 .53
spring (inside) (2) ..... **665**.. a26E9 .26
" (outside) (2) ..... **664**.. a26E10 .34
" abutment (4) ..... a26E11 .53
" brake (wood) (2) ..... a26E12 .47
" " cone (2) a26E13 1.00
" rod (lower) b26E14 1.50
" " nut ..... **314**.. b26E15 .07
" " " lock nut ..... **315**.. b26E16 .07
" " (upper) b26E17 1.00
" " lock nut (Cross head end) **328**.. a26E18 .11
" " nut ..... **314**.. b26E19 .07
" " " lock nut ..... **315**.. b26E20 .07
" " crosshead a26E21 1.66
" " " ball plug a26E22 1.00
" " " " " lock nut **328**.. a26E23 .11
tube (2) a26E24 1.32
" cap a26E25 3.77
" " stud (2) ..... a26E26 .20
" " " nut (2) ..... **314**.. a26E27 .07
" plate ..... a26E28 .34
JAW-TONGS SPRING BOX group includes also BALL SOCKET Xa27E and BALL SOCKET Xa81E **Xa26E 30.10**

(For machines prior to 520 see Note E14)
Jaw-tongs-spring-box Ball Socket (lower) a27E .92
lock nut ..... a27E1 .34
JAW-TONGS-SPRING-BOX BALL SOCKET group **Xa27E 1.26**

(For machines prior to 520 see Note E15)
Jaw-tongs-spring-box Ball Socket
(upper) ..... a81E .92
lock nut ..... a81E1 .34
JAW-TONGS-SPRING-BOX BALL SOCKET group **Xa81E 1.26**

(For machines prior to 3883 see Note E16. For machines equipped with Eighteen-point Attachment see Attachment 10CU.)
Locking-bar Bell Crank (for d13B and c13C) d28E 3.96
pin (3) ..... a28E3 .07
LOCKIBG NAR-BELL CRANK group **Xd28E 4.17**

Locking-bar Bell Crank, see Note E16 ..... 29E

Locking-bar-bell-crank Latch, see Note E16) 82E

Locking-bar-bell-crank Latch, see Note E16. 83E

Locking-bar-bell-crank-latch Spring, see Note E16 ..... 84E

Locking-bar-bell-crank-spring Post, see Note E16 ..... 85E

Locking-bar-bell-crank Spring, see Note E16 30E

Locking-bar-bell-crank-spring Post, see Note E16 ..... 31E

(For machines prior to 1603 see Note E17)
Locking-bar-bell-crank Stud (in a36EE) . b32E .47
nut ..... **319**.. b32E1 .08
LOCKING-BAR-BELL-CRANK STUD group **Xb32E 55**

(For machines prior to 3863 see Note E18)
Locking-bar Cam (marked I-3 in circle) ... **c86E 3.75**

NOTE: If one of these CAMS is required the SHAFTS complete with all their CAMS must be returned to our factory.

(For machines prior to 1603 see Note E19)
Locking-bar-cam Lever ..... c34EE *
roller ..... b34E3 ★.55
" pin ..... 34E6 ★.20
stud (for a33E5) ..... 34E4 .34
" nut ..... **314**.. 34E5 .07
LOCKING-BAR-CAM LEVER group **Xc34E 15.59**
*c34EE is assembled with b34E3, and b34E6 Price 15.18

For use with machines on which the Cams are worn we furnish:
Locking-bar-cam Lever roller (.015″ oversize) a34E11 .55
" " " " " (.030″ oversiz) a34E12 .55

(For machines prior to 520 see Note E20)
Locking-bar-cam-lever Fulcrum Stud ... a35E 1.32
nut ..... **330**.. a35E1 .18
LOCKING-BAR-CAM-LEVER FULCRUM STUD group **Xa35E 1.50**

(For machines prior to 3883 see Note E21. For machines equipped with Eighteen-point Attachment see Attachment 10CU.)
Locking-bar Operating Rod ..... b33E .66
eye ..... a33E10 .66
" lock nut ..... **316**.. a33E2 .07
hook ..... a33E5 .66
" lock nut (L. H.) ..... **317**.. a33E6 .07
spring ..... **6191**.. b33E7 .40
" washer ..... **410**.. a33E9 .07
LOCKING-BAR OPERATING ROD group **Xc33E 2.59**

(For machines prior to 1603 see Note E22)
Main Stand ..... a36EE *
air pipe (to 5 unit Pin, B Block) ..... 36E1 †
" " (" 6 " " ") ..... 36E2 †
" " (" 7 " " ") ..... 36E3 †
" " (" 8 " " ") ..... 36E4 †
" " (" 9 " " ") ..... 36E5 †
" " (" 9 " " ") ..... 36E6 †
" " (" 9 " " ") ..... 36E7 †
" " (" 10 " " ") ..... 36E8 †
" " (" 10 " " ") ..... 36E9 †
" " (" 11 " " ") ..... 36E10 *
" " (" 12 " " ") ..... 36E11 †
" " (" 13 " " ") ..... 36E12 †
" " (" 14 " " ") ..... 36E13 †
" " (" 15 " " ") ..... 36E14 †
" " (" A Pin, C Block) ..... 36E15 †
" " (" B " " ") ..... 36E16 †
" " (" C " " ") ..... 36E17 †
" " (" D " " ") ..... 36E18 †
" " (" E " " ") ..... 36E19 †
" " (" F " " ") ..... 36E20 †
" " (" G " " ") ..... 36E21 †
" " (" H " " ") ..... 36E22 †
" " (" I " " ") ..... 36E23 †
" " (" J " " ") ..... 36E24 †
" " (" K " " ") ..... 36E25 †
" " (" L " " ") ..... 36E26 †
" " (" M " " ") ..... 36E27 †
" " (" N " " ") ..... 36E28 †
" " (" 1, right, or .0005″ Pin, D Block). 36E29 †
" " (" 2, left, or .0075″ Pin, D Block) 36E30 †
" " (" 3, center, or Space Pin D Block 36E31 †
" " (" Leading Attachment) (3) ..... 36E32 †
" " (for air blast) ..... 36E33 †
bolt (1-2″ x 3 1-2″) ..... **11**.. 36E34 .26
" nut (for 36E34) ..... **327**.. 36E35 .11
" (7-16″ x 3 1-2″) ..... **12**.. 36E36 .26
" (7-16″ x 2″) (3) ..... **13**.. 36E37 .13
" nut (for 36E36 and 36E37) (4) .**322**.. 36E38 .10
bushing (for water, holes) (2) ..... a36E39 ★.04
MAIN STAND group **Xa36E 265.42**
*a36EE is assembled with 36E1 to 36E33, inclusive, and a36E39. Price 264.00
†Pipe properly annealed and suitable for repairs will be furnished, in lengths of not less than one foot, at fifty cents per foot.

(For machines prior to 3606 see Note E23)
Matrix-jaw Tongs (front)
connecting link ..... a37E1 *
" " pin (2) ..... 37E3 *
lever (lower) (2) ..... a37E4 *
" (upper) (2(..... a37E8 *
" distance piece (2) ..... a37E5 *
link (center) (2) ..... 37E6 *
" pin (center) (2) ..... 37E7 *
fulcrum pin (2) ..... a37E9 *
" " ring (2) ..... a37E10 *
lock slide (2) ..... a37E11 ★.07
" " spring (2) ..... a37E12 ★.07
MATRIX-JAW TONGS group **Xa37E 19.80**
*We cannot furnish separate parts of these TONGS except those for which a price is given. Instead we exchange repaired for worn TONGS. Price for exchange is... 9.90

(For machines prior to 3603 see Note E24)
Matrix-jaw Tongs (rear) ....
connecting link ..... b38E1 *
" " pin (2) ..... 38E6 *
lever (lower (2) ..... a38E7 *
" (upper) (2) ..... a38E11 *
" distance piece (2) ..... a38E8 *
link (center) (2) ..... 38E9 *
" pin (center) (2) ..... 38E10 *
fulcrum pin (2) ..... a38E13 *
" " ring (2) ..... 38E14 *
lock slide (2) ..... a38E15 ★.07
" " spring (2) ..... a38E16 ★.07
MATRIX-JAW TONGS group **Xb38E 19.80**
*We cannot furnish separate parts of these TONGS except those for which a price is given. Instead we exchange repaired for worn TONGS. Price for exchange is.. 9.90

(For machines prior to 503 see Note E25)
Matrix-jaw-tongs Stud (front, in a36EE) . a39E 1.32
nut (lower) ..... **329**.. 39E1 .14
" (upper) ..... **310**.. 39E2 .07
arm (for 24G) ..... a39E3 .20
MATRIX-JAW-TONGS STUD group **Xa39E 1.73**

Matrix-jaw-tongs Stud (rear, in c3D) 40E 1.06
nut (lower) ..... **327**.. 40E1 .11
" (upper) ..... **310**.. 40E2 .07
washer ..... **414**.. 40E3 .07
MATRIX-JAW-TONGS STUD group **X40E 1.31**

(For machines equipped with Attachment for Style LF Lead Mold see Attachment 13CU)
Mold-blade Bell Crank ..... 41EE *
ball stud ..... **841**.. 41E1 ★.40
MOLD-BLADE BELL CRANK group **X41E 5.28**
*41EE is assembled with 41E1. Order by complete symbol X41E.

Mold-blade-bell-crank Stud ..... 42E .60
nut (lower) ..... **327**.. 42E1 .11
" (upper) ..... **319**.. 42E2 .08
washer ..... **49**.. 42E3 .07
MOLD-BLADE-BELL-CRANK STUD group ..... **X42E .86**

(For machines prior to 4573 see Note E26)
Mold-blade Cam (driving, marked G1 in circle) ..... 43EE *
(driven, marked G1 in square) ..... a43E1 *
MOLD-BLADE CAM group **X43E 7.50**
*CAMS can be furnished only in pairs. When a pair of CAMS is to be replaced, the SHAFTS, complete with all their CAMS, must be returned to our factory. When ordering CAMS use the complete symbol.

(For machines equipped with Display Type Attachment see Attachment 9CU)
Mold-blade-cam Lever ..... 44EE *
extension ..... 44E1 ★.53
roller ..... 44E4 ★.50
" pin ..... 44E5 ★.20
MOLD-BLADE-CAM LEVER group **X44E 15.18**
*44EE is assembled with 44E4 and 44E5. Order by complete symbol X44E.

For use with machine on which the CAMS are worn we furnish:
Mold-blade-cam Lever roller (.015″ oversize) a44E12 .50
" " " " " (.030″ oversize) a44E13 .50

(For machines prior to 3748 and for machines using BD or BE Molds see Note E41)
Mold-blade-carrier-latch Bell Crank .... 87E1E *
spring ..... **6101**.. 87E7 .07
" pin ..... **872**.. 87E6 ★.04
stud ..... a87E8 .08
" nut ..... **310**.. 87E9 .07
MOLD-BLADE-CARRIER-LATCH BELL CRANK group **Xa87E 2.20**
*87E1E is assembled with 87E6. Price assembled 1.98

Mold-blade Connecting Rod ..... 45E .75
lock nut ..... **310**.. 45E1 .07
" " (L. H.) ..... **311**.. 45E2 .07
MOLD-BLADE CONNECTING ROD group ..... **X45E .89**

Mold-blade-connecting-rod Ball Socket
(on 44E1) ..... 46E .92
lock nut ..... 46E1 .34
plug ..... 46E2 .86
MOLD-BLADE-CONNECTING-ROD BALL SOCKET group **X46E 2.12**

Mold-blade-connecting-rod Ball Socket
(on 41E1) ..... 47E .92
lock nut ..... 47E1 .34
plug (L. H.) ..... 47E2 .86
MOLD-BLADE-CONNECTING-ROD BALL SOCKET group **X47E 2.12**

Mold-blade Tongs (see Note E42) Xa88E

(For machines prior to 2203 not equipped with Low Quad Attachment see Note E28)
Mold Clamp (front) ..... **89E1 .26**

(For machines prior to 1843 see Note E27)
Mold Clamp (side) ..... 49E .26
stud ..... **852**.. a49E1 .11
" washer ..... **413**.. 49E2 .07
" nut ..... **310**.. a49E3 .07
MOLD CLAMP group ..... **X49E .51**

(For machines prior to 2203 not equipped with Low Quad Attachment see Note E28)
Mold-clamp Stud (front) ..... **852**.. a48E1 .11
washer ..... **413**.. 48E2 .07
nut ..... **310**.. a48E3 .07
MOLD-CLAMP STUD group ..... **Xa48E .25**

(For Style VE Molds and Continuous Strip Molds see Note E29)
Mold Screw (1-4″ x 1 1-4″) (3), each ..... **a50E .11**

(For machines prior to 3748 see Note E30)

Oil Guard **113E1** **3.96**

(For machines prior to 7120 see Note E31)

Oil Pan ..... a114E1E *
partition (center) ..... a114E2 *
" (rear) ..... a114E3 *
" (rivet) (1-8″ x 1-8″) (6) ..... a114E4 *
" (") (flathead) (4) ..... a114E5 *
spout ..... a114E6 *
" washer ..... a114E7 *
plate ..... a114E8 *
" rivet ..... **7230**. a114E9 *
OIL PAN group **X114E** **7.50**
*a114E1E is assembled with a114E2 to a114E7 inclusive. Order by complete symbol X114E.

(For machines prior to 4493 see Note E32)

Oil-pan Shelf ..... a115E1E *
bracket (front) 115E2 7.26
" (rear) 115E3 6.60
handle ..... a115E4 *
" rivet (4) ..... **7177**. a115E5 ★.01
link (4) ..... a115E6 *
" fulcrum pin (upper) (4) ..... a115E7 *
" " " washer (4) ..... a115E8 *
" " stud (lower) (4) ..... 115E9 .11
" " " nut (4) ..... **310**. . 115E10 .07
" " " washer (4) ..... a115E11 .04
stop pin (2) ..... a115E12 *
OIL-PAN SHELF group **X115E** **17.88**
*a115E1E is assembled with a115E4 to a115E8 inclusive, and a115E12. Price 3.30

(For machines prior to 3748 and machines equipped with Speed Regulating Attachment see Note E33)

Oil-pan-shelf-bracket Bolt (8)
(each) ..... **2216**. . **116E1** **.11**

Paper-tower Cam (driving, marked F in circle) ..... 52EE *
(driven, marked F in square) ..... 52E1 *
PAPER-TOWER CAM group **X52E** **7.50**
*CAMS can be furnished only in pairs. When a pair of CAMS is to be replaced, the SHAFTS, complete with all their CAMS, must be returned to our factory. When ordering CAMS use the complete symbol.

Paper-tower-cam Lever ..... 53EE *
roller ..... 53E3 ★.50
" pin ..... 53E4 ★.20
stud (for 54E1) ..... 53E5 .20
" nut ..... **314**. . 53E6 .07
PAPER-TOWER-CAM Lever group **X53E** **15.45**
*53EE is assembled with 53E3 and 53E4
Price 15.18

For use with machines on which the CAMS are worn we furnish:
Paper-tower-cam Lever roller (.015″ oversize) a53E7 50
" " " " " (.030″ oversize) a53E8 .50

(For machines prior to 4453 see Note E34)

Paper-tower Operating Rod ..... 54E .79
eye (lower) ..... 54E1 .66
" lock nut ..... **310**. . 54E2 .07
" (upper) ..... a54E3 .53
" lock nut (L. H.) ..... **311**. . 54E4 .07
PAPER-TOWER OPERATING ROD group **Xa54E** **2.12**

Pin-jaw Tongs (front)
connecting eye ..... a55E1 *
" " (L. H.) ..... a55E2 *
" " adjusting stud ..... a55E15 ★.53
" " " " lock nut **35**. . a55E16 ★.05
" " " " lock nut (L. H.) **36**. . a55E17 ★.05
" " pin (2) ..... a55E14 *
lever (left) ..... 55E3 *
" (right) ..... 55E4 *
" bushing (end) (4) ..... 55E5 *
" " washer (end) (4) ..... 55E6 *
" " (center) (2) ..... 55E7 *
" " washer (center) (2) ..... 55E8 *
link (center, upper) (2) ..... 55E9 *
" (" lower) (2) ..... 55E10 *
" fulcrum pin (2) ..... 55E11 *
" bushing (Stud end) (2) ..... 55E12 *
spring post (in 55E3) ..... **833**. . 55E13 ★.07
PIN-JAW TONGS group **Xa55E** **17.80**
*We cannot furnish separate parts of these TONGS except those for which a price is given. Instead we exchange repaired for worn TONGS. Price for exchange.... 8.90

Pin-jaw Tongs (rear)
connecting eye ..... 56E1 *
" " (L. H.) ..... 56E2 *
" " adjusting stud ..... **842**. . 56E3 ★.53
" " " " lock nut **35**. . 56E4 ★.05
" " " " lock nut (L. H.) **36**. . 56E5 ★.05
" " pin (2) ..... 56E6 *
lever (front) ..... 56E7 *
" (rear) ..... 56E8 *
" bushing (end) (4) ..... 56E9 *
" " (center) (2) ..... 56E10 *
" " washer (end) (4) ..... 56E11 *
" " " (center) (2) ..... 56E12 *
link (3) ..... 56E13 *
" bushing (Stud end) (2) ..... 56E14 *
" fulcrum pin (2) ..... **766**. . 56E15 *
" (lower Link at center of 56E8) ..... 56E16 *
spring post (in 56E8) ..... **833**. . 56E17 ★.07
PIN-JAW TONGS group **X56E** **17.80**
*We cannot furnish separate parts of these TONGS except those for which a price is given. Instead we exchange repaired for worn TONGS. Price for exchange.... 8.90

Pin-jaw-tongs Spring (inner) ..... **661**. . 57E .47
(outer) ..... **660** 57E1 .53
guide tube 57E2 1.19
" " eye ..... 57E3 .47
" " nut ..... 57E4 .16
" " spring sleeve ..... 57E5 .34
" rod ..... 57E6 .20
" " spring plate ..... 57E7 .11
" " " rivet ..... **7161**. . 57E8 .01
PIN-JAW-TONGS SPRING group **X57E** **3.48**

(For machines prior to 3603 see Note E35)

Pin-jaw-tongs-spring Bell Crank ..... a58EE *
pin (for 60E) ..... **831**. . 58E1 ★.07
" (for 57E3) ..... 58E2 ★.07
" cotter ..... **95**. . 58E3 .00
PIN-JAW-TONGS-SPRING BELL CRANK group **X58E** **2.64**
*a58EE is assembled with 58E1 and 58E2.
Price 2.64

Pin-jaw-tongs-spring-bell-crank Stud ..... 59E .53
nut (lower) ..... **314**. . 59E1 .07
" (upper) ..... **310**. . 59E2 .07
washer ..... **414**. . 59E3 .07
PIN-JAW-TONGS-SPRING-BELL-CRANK STUD group ..... **X59E** **.74**

Pin-jaw-tongs-spring Connecting Link (long, front) ..... **60E** **.26**

Pin-jaw-tongs-spring Connecting Link (short, rear) ..... **61E** **.20**

(For machines prior to 3603 see Note E36)

Pin-jaw-tongs-spring Lever ..... a62EE *
pin (for 61E) ..... **831**. . 62E1 ★.07
" (for 57E7) ..... **831**. . 62E2 ★.07
PIN-JAW-TONGS-SPRING LEVER group **X62E** **2.64**
*a62EE is assembled with 62E1 and 62E2. Order by complete symbol X62E.

Pin-jaw-tongs Stud (rear, in a36EE) ..... 63E .92
nut (lower) ..... **327**. . 63E1 .11
" (upper) ..... **310**. . 63E2 .07
washer ..... **414**. . 63E3 .07
PIN-JAW-TONGS STUD group **X63E** **1.17**

Pulley (driving) **64E** **7.26**

(For machines prior to 4208 see Note E37. For machines equipped with Speed Regulating Attachment see Note E37 and Attachment 9CU.)

Pulley (loose) **a65E** **7.26**

Pump Cam (driving, marked B in circle) ... 66EE *
(driven, marked B in square) ..... 66E1 *
PUMP CAM group **X66E** **7.50**
*CAMS can be furnished only in pairs. When a pair of CAMS are to be replaced, the SHAFTS, complete with all their CAMS, must be returned to our factory. When ordering CAMS use the complete symbol.

Pump-cam Lever ..... 67EE *
roller ..... 67E3 ★.55
" pin ..... 67E4 ★.20
PUMP-CAM LEVER group **X67E** **15.18**
*67EE is assembled with 67E3 and 67E4 Order by complete symbol X67E.

For use with machines on which the CAMS are worn we furnish:

Pump-cam Lever roller (.015″ oversize) ..... a67E5 .55
" " " " (.030″ oversize) ..... a67E6 .55

Pump-cam-lever Connecting Rod ..... 68E .66
eye (L. H.) 68E1 1.32
" lock nut (L. H.) ..... **325**. . 68E2 .10
" 68E3 1.32
" lock nut ..... **324**. . 68E4 .10
" pin (2) ..... 68E5 .13
" " cotter (4) ..... **91**. . 68E6 .00
PUMP-CAM-LEVER CONNECTING ROD group.. **X68E** **3.76**

Transfer-wedge Cam (driving, marked C in Circle) ..... a69EE *
driven, marked C in square) ..... a69E1 *
TRANSFER-WEDGE CAM group **X69E** **7.50**
*CAMS can be furnished only in pairs. When a pair of CAMS are to be replaced, the SHAFTS, complete with all their CAMS, must be returned to our factory. When ordering CAMS use complete symbol.

Transfer-Wedge-cam Lever ..... 70EE *
clamp bolt ..... **111**. . 70E3 .11
extension adjusting bolt ..... **18**. . 70E4 .12
" " " lock nut .... **314**. . 70E5 .07
roller ..... 70E6 ★.50
" pin ..... 70E7 ★.20
TRANSFER-WEDGE-CAM-LEVER group **X70E** **15.82**
*70EE is assembled with 70E6 and 70E7.
Price assembled 15.52

For use with machines on which the CAMS are worn we furnish:
Transfer-wedge-cam Lever roller (.015″ oversize) .. a70E8 .50
" " " " " (.030″ oversize) .. a70E9 .50

Type-carrier Cam (driving, marked A in circle) ..... a71EE *
(driven, marked A in square) ..... a71E1 *
TYPE-CARRIER CAM group **X71E** **7.50**
*CAMS can be furnished only in pairs. When a pair of CAMS is to be replaced, the SHAFTS, with all their CAMS, must be returned to our factory. When ordering CAMS use the complete symbol.

Type-carrier-cam Lever ..... 72EE *
clamp bolt ..... **111**. . 72E3 .11
extension a72E4 1.50
" adjusting bolt ..... **18**. . 72E5 .12
" " " lock nut .... **314**. . 72E6 .07
roller ..... 72E7 ★.55
" pin ..... 72E8 ★.20
TYPE-CARRIER-CAM LEVER group **Xa72E** **18.30**
*72EE is assembled with 72E7 and 72E8.
Price assembled 16.50

For use with machines on which the CAMS are worn we furnish:
Type-carrier-cam Lever roller (.015″ oversize) a72E9 .55
" " " " " (.030″ oversize) a72E10 .55

Type-pusher Bell Crank ..... 73EE *
ball stud ..... **841**. . 73E1 ★.40
TYPE-PUSHER BELL CRANK group **X73E** **5.28**
*73EE is assembled with 73E1. Order by complete symbol X73E.

Type-pusher-bell-crank Fulcrum Stud .. 74E .40
nut ..... **327**. . 74E1 .11
TYPE-PUSHER-BELL-CRANK FULCRUM STUD group ..... **X74E** **.51**

(For machines prior to 4227 see Note E38)

Type-pusher Cam (driving, marked H in circle) ..... a75E *
(driven, marked H in circle) ..... c75E1E *
latch b75E2 2.64
" cotter ..... **94**. . a75E3 .00
" spring ..... **6122**. . a75E4 .08
" " pin ..... a75E6 ★.05
" washer ..... **46**. . a75E5 .07
TYPE-PUSHER CAM group **X75E** **10.29**
*c75E1E is assembled with a75E6 and its companion CAM a75E. Price 7.50
NOTE: CAMS can be furnished only in pairs. When a pair of CAMS is to be replaced, the SHAFTS, complete with all their CAMS, must be returned to our factory.

Type-pusher-cam Lever ..... 76EE *
ball extension ..... 76E1 ★.40
roller ..... 76E4 ★.50
" pin ..... 76E5 ★.20
TYPE-PUSHER-CAM LEVER group **X76E** **15.18**
*76EE is assembled with 76E1, 76E4 and 76E5. Order by complete symbol X76E.

For use with machines on which the CAMS are worn we furnish:
Type-pusher cam Lever roller (.015″ oversize) a76E6 .50
" " " " " (.030″ oversize) a76E7 .50

(For machines prior to 1151 see Note E39)

Type-pusher Connecting Rod ..... 77E .66
ball socket (long, Cam Lever end) 77E1 1.06
" " (short, Cam Lever end) ..... 77E2 .66
" " " lock nut ..... **310**. . 77E3 .07
" " " lock nut ..... **312**. . 77E4 .07
spring (inside) ..... **657**. . a77E6 .40
" (outside) ..... **6112**. . a77E7 .40
TYPE-PUSHER CONNECTING ROD group **X77E** **3.32**

Type-pusher-connecting-rod Ball Socket (Bell Crank end) ..... 78E .92
lock nut ..... 78E1 .34
plug ..... 78E2 .86
TYPE-PUSHER-CONNECTING-ROD BALL SOCKET group **X78E** **2.12**

Water Connection (front) ..... 79E .40
screw (2) ..... **240**. . 79E1 .05
WATER CONNECTION group ..... **X79E** **.50**

(For machines prior to 5233 see Note E40)

Worm Shaft a80E* 5.60
collar ..... a80E7 ★.60
gear 80E1* 5.94
hand wheel 80E2 *6.60
key (for Worm) ..... 80E3* .07
" (long, for 80E1 and 80E2) ..... a80E4* .10
nut ..... **329**. . 80E5 ★.14
worm 80E6* 3.96
WORM SHAFT group **Xb80E** **23.01**
*Parts 80E2, 80E5 and a80E7 can be applied outside our factory; for any other parts the complete WORM SHAFT must be returned to our factory. No charge other than for parts used is made for repairing WORM SHAFTS.

Section F

Mechanism for receiving type from the Type Carrier and assembling it in lines on the galley pan.

(For machines equipped with Eighteen-point Attachment see Attachment 10CU. For machines prior to 5293 see Note F28.)

Column Pusher ..... a1FF *
line support stop (and type guide) ..... 1F1 ★.20
" " " screw ..... **253**. . 1F2 ★.03
sheave (for Weight Cord) ..... a1F7 ★.45
spring post ..... **831**. . 1F3 ★.07
stop pin (for 54F1) ..... a1F6 ★.05
stud (for a1F7) ..... a1F4 ★.07
" cotter ..... **95**. . a1F5 ★.00
COLUMN PUSHER group **Xa1F** **25.00**
*a1FF is assembled with 1F1, 1F2, 1F3, a1F4, a1F5, a1F6 and a1F7. Order by complete symbol Xa1F.

Column-pusher Adjusting Screw (for varying "point size") 2FF *
disc 2F1 *
" pin 743 2F2 ★.03
COLUMN-PUSHER ADJUSTING SCREW group X2F 1.45
*2FF is assembled with 2F1 and 2F2. Order by complete symbol X2F.

Column-pusher-adjusting-screw Stand 3FF *
spring 3F1 ★.13
stud 3F2 ★.34
" nut (2) 327 3F3 .11
COLUMN-PUSHER-ADJUSTIG-SCREW STAND group X3F 3.52
*3FF is assembled with 3F1 and 3F2. Price assembled is 3.30

(For machines prior to 5533 see Note F37. For machines equipped with Automatic Cutter see Attachment 12CU.)
Column-pusher Fulcrum Screw (long) a4F3 .36
(short) 4F1 .34
lock nut (2) 329 4F2 .14
COLUMN-PUSHER FULCRUM SCREW group X4F .98

(For machines equipped with Eighteen-point Attachment see Attachment 10CU)
Column-pusher Lever 5F 2.90

Column-pusher-lever Stud 6F .60
nut 327 6F1 .11
washer 45 6F2 .10
COLUMN-PUSHER-LEVER STUD group X6F .81

(For machines equipped with Eighteen-point Attachment see Atachment 10CU)
Column-pusher Spring 624 7F .34
plate (2) 7F1 .04
COLUMN-PUSHER SPRING group X7F .42

Column-pusher Spring Box 8F 1.32
adjusting ball plug 8F1 1.66
" " " lock nut 8F2 .40
ball plunger 8F3 1.32
" " washer 46 8F4 .07
plug 8F5 1.00
spring 627 8F6 .20
COLUMN-PUSHER SPRING BOX group X8F 5.97

Column Support (extra short, for columns 6 to 9 picas
bar 52F1F *
slide 52F4 *
" plate 52F5 *
" stop pin 772 52F8 ★.07
spring 6216 52F9 ★.07
" guide rod 52F10 *
COLUMN SUPPORT group X52F 3.00
*52F1F is assembled with 52F4, 52F5, 52F8, 52F9 and 52F10. Order by the complete symbol X52F.

Column Support (short, for columns 9 to 13 1-2 picas)
bar 9F1F *
" finger catch 9F2 ★.20
" " " screw (2) 252 9F3 ★.03
slide 9F4 *
" plate 9F5 *
" finger catch 9F6 ★.20
" " " rivet 775 9F7 ★.07
" stop pin 772 9F8 ★.07
spring 639 9F9 ★.08
" guide rod 9F10 *
COLUMN SUPPORT group X9F 2.32
*9F1F is assembled with 9F2 to 9F10 inclusive. Order by complete symbol X9F.

Column Support (medium, for columns 13 1-2 to 20 picas)
bar 10F1F *
" finger catch 10F2 ★.20
" " " screw (2) 252 10F3 ★.03
slide 10F4 *
" plate 10F5 *
" finger catch 10F6 ★.20
" " " rivet 775 10F7 ★.07
" stop pin 772 10F8 ★.07
spring 640 10F9 ★.11
" guide rod 10F10 *
COLUMN SUPPORT group X10F 2.64
*10F1F is assembled with 10F2 to 10F10 inclusive. Order by complete symbol X10F.

Column Support (long, for columns 20 to 30 1-2 picas)
bar 11F1F *
" finger catch 11F2 ★.20
" " " screw (2) 252 11F3 ★.03
slide 11F4 *
" plate 11F5 *
" finger catch 11F6 ★.20
" " " rivet 775 11F7 ★.07
" stop pin 772 11F8 ★.07
spring 641 11F9 ★.13
" guide rod 11F10 *
COLUMN SUPPORT group X11F 2.98
*11F1F is assembled with 11F2 to 11F10 inclusive. Order by complete symbol X11F.

Column Support (extra long, for columns 26 1-2 to 42 picas)
bar 12F1F *
" finger catch 12F2 ★.20
" " " screw (2) 252 12F3 ★.03
slide 12F4 *
" plate 12F5 *
" finger catch 12F6 ★.20
" " " rivet 775 12F7 ★.07
" stop pin 772 12F8 ★.07
spring 659 12F9 ★.20
" guide rod 12F10 *
COLUMN SUPPORT group X12F 3.30
*12F1F is assembled with 12F2 to 12F10 inclusive. Order by complete symbol X12F.

(For machines prior to 2299 see Note F1)
Galley Bar 13FF *
pin 13F3 ★.07
GALLEY BAR group X13F 5.94
*13FF is assembled with 13F3 Order by complete symbol X13F

(For machines prior to 1665 see Note F2)
Galley Cam b14FF *
driving pawl 14F1F †
" " pin (for 14F5) 721 14F2 ★.01
" " fulcrum stud a14F3 ★.26
" " " " washer (lower) 47 14F4 .07
" " " " " (upper) 410 a14F9 .07
" " " " nut 314 a14F10 .07
" " spring 646 14F5 .07
" " " post (in b14FF) 880 14F6 .07
" " stop pin (in b14FF) 14F7 ★.16
sleeve 14F8 *
GALLEY CAM group Xa14F 31.37
*b14FF is assembled with a1F3, 14F7, and 14F8. Price 29.04
†14F1F is assembled with 14F2. Price. 1.98

(For machines prior to 4512 see Note F3)
Galley-cam Shaft 15FF *
key (3) 15F1 ★.07
ratchet 15F2 3.64
worm wheel 15F3 7.92
" " oil pan a15F4 .66
GALLEY-CAM SHAFT group Xa15F 16.18
*15FF is assembled with 15F1. Price 3.96

Galley-cam Stand 16F 39.60
dowel 53 16F1 .07
screw (4) 29 16F2 .11
GALLEY-CAM STAND group X16F 40.11

(For machines prior to 4750 see Note F4. For machines equipped with Automatic Cutter see Note F4 and Attachment 12CU)
Galley-pan Shelf a17F 11.88
adjusting bar (for Galley Pan) a17F1 .13
" " clamp 17F2 .34
" " " bevel nut 17F3 .13
" " " wing bolt a17F4 .13
" " " " " washer a17F7 .07
screw (4) 29 17F5 .11
wing bolt (2) b17F6F *
" " pin (2) a17F9 *
GALLEY-PAN SHELF group Xa17F 13.62
*b17F6F is assembled with a17F9. Price (each) .25

(For machines prior to 4750 see Note F5)
Galley-pan Support a18F 6.60
bar (2) a18F1 .92
bevel nut (3) 18F2 .13
" " wing bolt (3) a18F3 .13
" " " " washer (3) a18F8 .07
block (for 13FF) 18F4 .26
corner block (rear, for Galley Pan) 18F5 .34
" " (front, for Galley Pan) 18F6 .34
wing bolt (2) c18F7F *
" " pin (2) a18F9 *
GALLEY-PAN SUPPORT group Xa18F 10.87
*c18F7F is assembled with a18F9. Price (each) .25

Line Hook (lower) 19F1F *
(upper) 19F2 *
lever 19F3 *
rivet (2) 7164 19F4 *
separator 19F5 *
LINE HOOK group X19F 6.60
*19F1F is assembled with 19F2 to 19F5 inclusive. Order by complete symbol X19F.

Line-hook Carriage 20F 3.96
friction plunger (2) 20F1 .07
" " spring (2) 625 20F2 .07
LINE-HOOK CARRIAGE group X20F 4.24

(For machines prior to 523 see Note F6)
Line-hook Operating Bar a21F 2.90
friction plunger 21F1 .07
" " spring 629 21F2 .07
locking rod 21F3 1.00
LINE-HOOK OPERATING BAR group Xa21F 4.04

(For machines prior to 523 see Note F7)
Line-hook-operating-bar Stop 22F .73
adjusting screw a22F1 .08
screw (2) 223 22F2 .08
LINE-HOOK-OPERATING-BAR STOP group X22F .97

(For machines prior to 5293 see Note F8)
Line-hook Operating Slide c23FF *
friction plunger (2) a23F12 .07
" " spring (2) 625 a23F13 .07
pin (for Operating Bar) a23F7 ★.10
LINE-HOOK OPERATING SLIDE group Xc23F 4.28
*c23FF is assembled with a23F7. Price 4.00

(For machines prior to 5293 see Note F9)
Line-hook-operating-slide Latch a53F .66
frame c53F1F *
" extension a53F13 ★.40
" " rivet (2) 7173 a53F14 ★.04
" fulcrum pin (2) a53F12 .13
" spring pin 854 a53F6 ★.05
spring 6111 a53F9 .07
stud (in c53F1F) a53F8 .07
LINE-HOOK-OPERATING-SLIDE LATCH group Xc53F 4.06
*c53F1F is assembled with a53F6, a53F13 and a53F14. Price 3.00

Line-hook-operating-slide Lever 25FF *
cam roller 25F1 .45
" " pin 25F2 ★.34
LINE-HOOK-OPERATING-SLIDE LEVER group X25F 7.05
*25FF is assembled with 25F2. Price 6.60

Line-hook-operating-slide-lever Stud 26F 1.98
nut 329 26F1 .14
LINE-HOOK-OPERATING-SLIDE-LEVER STUD group X26F 2.12

(For machines equipped with Eighteen-point Attachment see Attachment 10CU. For machines prior to 5293 see Note F29.)
Line-hook-operating-slide Shoe a24F 2.90
screw (5) 223 24F1 .08
LINE-HOOK-OPERATING-SLIDE SHOE group Xa24F 3.30

(For machines prior to 5293 see Note F10)
Line-hook-operating-slide Spring Box a27F 2.00
pin (in 25FF) 27F1 .11
plug (rear) 27F3 .53
spring 626 27F4 .20
" abutment (front) 27F5 .20
" " (rear) 415 27F6 .07
rod 27F7 .73
" adjusting nut 310 27F8 .07
" " " lock nut 312 27F9 .07
" eye 27F10 .66
" " lock nut 316 27F11 .07
LINE-HOOK-OPERATING-SLIDE SPRING BOX group Xb27F 4.71

Line-hook Stud 28F .86
nut 310 28F1 .07
LINE-HOOK STUD group X28F .93

(For machines prior to 4197 see Note F11)
Line Support (thin, from 5 1-2 pt to 8 pt. inclusive) a29FF *
spring 29F1 ★.07
" screw 254 29F2 ★.03
LINE SUPPORT group Xa29F 1.66
*a29FF is assembled with 29F1 and 29F2. Order by complete symbol Xa29F.

(For machines prior to 4197 see Note F12)
Line Support (thick, from 9 pt. to 12 pt. inclusive) a30FF *
spring 30F1 ★.07
" screw 254 30F2 ★.03
LINE SUPPORT group Xa30F 1.66
*a30FF is assembled with 30F1 and 30F2. Order by complete symbol Xa30F.

(For machines prior to 5293 see Note F35)
Line-support Pusher a54F1F *
guide a54F2 ★.34
" rivet 7192 a54F3 ★.03
LINE-SUPPORT PUSHER group Xa54F 2.25
*a54F1F is assembled with a54F2 and a54F3 Order by complete symbol Xa54F

(For machines prior to 5293 see Note F35)
Line-support-pusher Catch Plate 55F1 .34

(For machines prior to 5503 see Note F13)
Main Galley Stand a31F 132.00
dowel 531 a31F1 .13
screw (1-2″ x 1 3-8″) 22 31F2 .13
" (3-8″ x 1 1-8″) 28 31F4 .11
spring post (for 7F) 831 31F5 .07
stud (stop for a35H12) a31F7 .45
MAIN GALLEY STAND group Xa31F 132.89

(For machines prior to 512 see Note F14)
Operating Lever a32F 6.60

(For machines prior to 5293 see Note F15)
Operating-lever Latch a33F 4.50
bar (for a44F9F) a33F1 1.00
" clamp a33F2 .50
" " screw (knurled) a33F3 .13
shaft a33F7 .20
" cotter (2) 95 a33F8 .00
OPERATING-LEVER LATCH group Xa33F 6.33

Operating-lever-latch Spring 623 34F .11

Operating-lever-latch-spring Post (in a31F) 834 35F .07

(For machines prior to 5293 see Note F34)
Operating-lever-latch Stand a36F 1.80
bolt (2) 113 36F1 .10
OPERATING-LEVER-LATCH STAND group Xa36F 2.00

(For machines equipped with Speed Regulating Attachment see Note F16 and Attachment 9CU)
Operating-lever Spring Box 37FF *
plunger 37F1 ★.60
" stop pin 58 37F2 ★.04
spring 638 37F3 ★.11
OPERATING-LEVER SPRING BOX group X37F 2.73
*37FF is assembled with 37F1, 37F2 and 37F3. Order by complete symbol X37F.

Operating-lever Stud 38F 1.52
nut 322 38F1 .10
OPERATING-LEVER STUD group X38F 1.62

(For machines prior to 5293 see Note F30)
Rule a39FF *
guide pin 39F1 ★.16
" " rivet (2) 725 39F2 ★.01
lifting rod 39F3 *
" " adjusting nut 314 39F4 .07
" " " " lock nut 315 39F5 .07
" " sleeve 39F6 .11
" " spring 649 39F7 .14
" " support 39F8 *
" " " rivet (4) 7163 39F9 ★.01
" " washer (3) 410 39F10 .07
RULE group Xa39F 11.10
*a39FF is assembled with 39F1, 39F2, 39F3, 39F8 and 39F9. Price 10.50

(For machines prior to 5293 see Note F31)

Rule Lever ..... a40FF *
cam roller ..... 40F1 ★.45
" " oil pipe ..... 40F2 ★.07
" " pin ..... 40F3 ★.40
" " " nut ..... 319.. 40F4 ★.08
" " " " washer ..... 49.. 40F5 ★.07
RULE LEVER group **Xa40F 9.25**
*a40FF is assembled with 40F1 to 40F5 inclusive. Order by complet symbol Xa40F.

Rule-lever Stud ..... **41F .86**

Sort Tray **42F 4.30**

Sort-tray Support Bar ..... 43FF *
stud (long) ..... 43F1 .34
" (short) ..... 43F2 .34
" nut (2) ..... 314.. 43F3 .07
" (for 42F) ..... 43F4 ★.13
" nut (knurled) ..... 43F5 .53
SORT-TRAY SUPPORT BAR group **X43F 2.14**
*43FF is assembled with 43F4. Price ..... .79

(For machines equipped with Eighteen-point Attachment see Attachment 10CU. For machines prior to 5293 see Note F17.)

Stop Slide (for long and short lines) ..... a44FF *
adjusting stand (for column width) a44F1 4.00
" " bolt ..... a44F16 .13
" " " bevel nut ..... 44F11 .13
" " guide bar (for adjusting column width) ..... a44F2F †
" " guide bar clamp ..... 44F3 .66
" " " " wing bolt. a44F4 .66
" " " " stop pin ..... a44F17 ★.05
" " plate 44F7 1.98
" " " screw (3) ..... 247.. 44F8 .04
ever ..... a44F9F ‡
" bolt ..... 132.. b44F10 .08
" bushing ..... 44F12 .20
" pin ..... 44F14 ★.07
pin ..... 44F15 ★.07
STOP SLIDE group **Xb44F 19.60**
*a44FF is assembled with 44F15. Price 3.64
†a44F2F is assembled with a44F17. Price is 6.00
‡a44F9F is assembled with 44F14. Price is 2.00

(For machines prior to 4537 see Note F18)

Trip Lever ..... c45FF *
adjusting screw ..... 255.. 45F1 .04
" " clamp screw ..... a45F2 .07
distance pin ..... a45F14 ‡
" " plate (lower) ..... a45F15F ‡
" " " (upper) ..... a45F16 ‡
" " spring ..... 6132.. a45F17 .13
" " " post ..... 884.. a45F18 ‡
latch ..... a45F3F †
" guide pin ..... a45F4 .*03
" spring ..... 6122.. a45F13 .08
" " post ..... 866.. a45F12 .*04
" stud ..... 45F5 ★.16
" " cotter ..... 94.. 45F6 ★.00
" " washer ..... 412.. 45F7 ★.07
spring post (for 47F) ..... 834.. 45F8 ★.07
" " (for a45F13) ..... 867.. a45F11 ★.05
" " (for a45F17) ..... 868.. a45F19 ★.05
stop screw ..... 119.. 45F9 .10
" " lock nut ..... 310.. 45F10 .07
TRIP LEVER group **Xc45F 8.09**
*c45FF is assembled with a45F3F, a45F4, 45F5 to 45F8 inclusive, a45F11 and a45F19. Price 6.60
†a45F3F is assembled with a45F12 Price 1.32
‡a45F15F is assembled with a45F14, a45F16 and a45F18. Price 1.00

(For machines prior to 1823 see Note F19)

Trip-lever Fulcrum Stud ..... a46F .79
nut ..... 314.. a46F1 .07
washer ..... 410.. a46F2 .07
TRIP-LEVER FULCRUM STUD group ..... **Xa46F .93**

Trip-lever Spring ..... 622.. **47F .11**

Trip-lever-spring Post (in a31F) .... 834.. **48F .07**

(For machines prior to 4750 see Note F20. For machines equipped with Display Type Attachment see Note F20 and Attachment 9CU. For machines equipped with Style LF (Piece Lead) Mold see Note F20 and Attachment 13CU.)

Type Channel Block (adjustable) 50F *3.30
clamp ..... a50F1F *
" latch ..... a50F2 ★1.40
" " screw ..... 249.. a50F13 ★.04
" spring ..... 650.. 50F4 ★.07
" tongue ..... 50F5 *
" " rivet (3) ..... 721.. 50F8 ★.01
stop plate (for 50F5) ..... 50F9 ★.07
" " screw (2) ..... 250.. 50F10 ★.04
wing bolt ..... a50F6 .13
" washer ..... 412.. 50F7 .07
TYPE CHANNEL BLOCK group **Xa50F 17.10**
*a50F1F is assembled with 50F, a50F2, 50F4, 50F5, 50F8 to 50F10 inclusive, and a50F13. Price 16.90

(For machines prior to 3093 see Note F21. For machines equipped with Display Type Attachment see Note F21 and Attachment 9CU. For machines equipped with Style LF (Piece Lead) Mold see Note F21 and Attachment 13CU.)

Type Channel Block (fixed) ..... a51FF *
dowel (No. 5 x 1 1-2″) (front) ..... 55.. 51F1 .05
" (No. 5 x 1 1-4″) (rear) ..... 56.. 51F2 .05
latch a51F3 *1.40
latch screw ..... 2204.. a51F9 ★.05
screw (1-4″ x 1 1-8″) ..... 220.. 51F5 .10
" (1-4″ x 1 3-8″) ..... 226.. 51F6 .10
facing (4) ..... a51F7 *
" rivet (4) ..... 7158.. a51F8 ★.04
TYPE CHANNEL BLOCK group **Xa51F 8.20**
*a51FF is assembled with a51F3, a51F7, a51F8 and a51F9. Price 7.90

(For machines prior to 5293 see Note F32)

Type Channel Plate a49F 6.60
screw ..... 229.. 49F1 .07
bolt ..... 131.. a49F2 .20
TYPE CHANNEL PLATE group **Xa49F 6.87**

(For machines prior to 5293 see Note F35)

Weight 66F1 4.00
plug ..... 66F2 .53
rod ..... 66F3F *
" washer ..... 66F4 ★.07
spring (inner) ..... 6147.. 66F5 .20
" (outer) ..... 6146.. 66F6 .26
tube ..... 66F7F †
" bushing ..... 66F8 ★.10
" cap ..... 66F9 .60
WEIGHT group **X66F 6.69**
*66F3F is assembled with 66F4. Price .. .50
†66F7F is assembled with 66F8. Price .. .60

(For machines prior to 5293 see Note F35)

Weight Cord ..... **68F1 .13**

(For machines prior to 5293 see Note F33)

Weight-cord Sheave ..... 131F1 .45
support 131F2 1.50
" clamp screw ..... 233.. 131F3 .07
" nut ..... 35.. 131F4 .05
" washer ..... 420.. 131F5 .04
WEIGHT-CORD SHEAVE group **X131F 2.11**

Section G

Mechansim for moving and positioning the controller paper and admitting air to the Pin Blocks.

Air Bar (including Valve Body) ..... 2GG *
clamp screw ..... 242.. 2G1 ★.05
leather packing ..... 2G2 ★.30
spring (2) ..... 630.. 2G3 .11
" stud (2) ..... 2G4 .07
" " washer (2) ..... 420.. 2G5 .04
" " nut (2) ..... 35.. 2G6 .05
" " " lock nut (2) ..... 37.. 2G7 .05
valve ..... 2G8 ★.34
" spring ..... 632.. 2G9 ★.07
" body plug (in 2GG) ..... 2G10 ★.20
AIR BAR group **X2G 7.24**
*2GG is asembled with 2G1, 2G2 and 2G8 to 2G10 inclusive. Price 6.60

Air-bar Clamping Lever (also operates 2G8) 3G 2.98
stud (for 4G1) ..... 3G1 .20
" nut ..... 35.. 3G2 .05
screw (for operating 2G8) ..... 2186.. 3G3 .05
" lock nut ..... 35.. 3G4 .05
AIR-BAR CLAMPONG LEVER group **X3G 3.33**

(For machines prior to 683 see Note G1)

Air-bar-clamping-lever Connecting Rod. 4G .20
adjustable sleeve ..... a4G7 .20
" " lock nut ..... 37.. a4G8 .05
connecting hook ..... 4G1 .66
" " lock nut ..... 36.. 4G2 .05
" link 4G3 1.32
" " lock nut ..... 35.. 4G4 .05
spring ..... 634.. 4G5 .11
" seat ..... 4G6 .04
washer ..... a4G9 .04
AIR-BAR-CLAMPING-LEVER CONNECTING ROD group **X4G 2.72**

(For machines prior to 1103 see Note G2)

Air-bar Shaft 5G 1.45
distance collar ..... 5G1 .13
headless screw (end) ..... 257.. 5G2 .04
" " nut ..... 35.. 5G3 .05
" " washer ..... 419.. 5G5 .04
AIR-BAR SHAFT group **X5G 1.71**

Air Pipe (to 2GG) ..... 6G .66
connection ..... 6G1 .86
AIR PIPE group **X6G 1.52**

Air-pipe Cover (right) ..... 7G .34
screw (3) ..... 252.. 7G1 .03
AIR-PIPE COVER group ..... **X7G .43**

Air-pipe Cover (left) ..... 8GG *
screw (3) ..... 252.. 8G1 .03
guide (for X21G) ..... 8G2 *
" rivet (4) ..... 780.. 8G3 ★.01
" screw (2) ..... 249.. 8G4 .04
AIR-PIPE COVER group **X8G 1.17**
*8GG is assembled with 8G2 and 8G3. Price 1.00

Air-tower Housing (front) ..... 1G *
(rear) ..... 1G1 *
air pipe (31) ..... 1G2 *
base ..... a1G3 *
" screw (between Housings, left) .. 219.. 1G4 .10
" " (" " right) .. 220.. a1G22 .10
cross girt ..... 1G5G *
" " cap ..... 1G6 *
" " " dowel ..... 1G7 ★.05
" " " screw (top) (2) ..... 231.. 1G8 ★.08
" " " " (side) (2) ..... 235.. 1G9 ★.07
dowel (to 1G5G) (4) ..... 58.. 1G10 ★.04
screw (to a1G3) (4) ..... 233.. 1G11 ★.07
" (to 1G5G) (3) ..... 232.. 1G12 ★.07
" (to 1G5G, thin head) ..... 238.. 1G13 ★.07
" (to a36EE) (4) ..... 222.. 1G14 .08
stud (for 19G) ..... 1G16 ★.26
" washer ..... 413.. 1G17 .07
" nut ..... 310.. 1G18 .07
stop pin (for 12G) ..... 837.. 1G19 ★.03
" screw (for 14GG) (2) ..... 2186.. 1G20 .05
" " lock nut (2) ..... 35.. 1G21 .05
AIR-TOWER HOUSING group **Xa1G 47.50**
*1G5G is assembled with 1G, 1G1, 1G2, a1G3, 1G6 to 1G13 inclusive, 1G16 and 1G19. Price 46.64

Basket .....
bottom ..... 9G1G *
leather strip (front) ..... 9G2 *
" " (rear) ..... 9G3 *
" " rivet (6) ..... 780.. 9G4 *
side plate (2) ..... 9G5 *
wire connecting rod (2) ..... 9G6 *
BASKET group **X9G 5.28**
*9G1G is assembled with 9G2 to 9G6 inclusive. Order by complete symbol X9G.

Name Plate ..... a10G .79
screw (4) ..... 251.. 10G1 .04
NAME PLATE group ..... **Xa10G .95**

Paper-feed Locking Lever (for stopping movement of paper) ..... 12G .73
stud ..... 843.. 12G1 .04
PAPER-FEED LOCKING LEVER group ..... **X12G .77**

Paper-feed Pawl .....
(locking, upper) ..... 13G1G *
" hub ..... 13G2 *
" operating link ..... 13G3 *
" operating link pin (also Spring Post) ..... 857.. 13G4 ★.04
" operating link bushing ..... 13G5 ★.07
(feeding, lower) ..... 13G6 *
" connecting link (2) ..... 13G7 *
" " " rivet (2) ..... 13G8 ★.04
" spring post ..... 872.. 13G9 ★.04
spring ..... 636.. 13G10 .07
PAPER-FEED PAWL group **X13G 8.65**
*13G1G is assembled with 13G2 to 13G9 inclusive. Price 8.58

Paper-feed-pawl Ring ..... 14GG *
pin (Stop for 13G6) ..... 14G1 ★.01
friction spring (2) ..... 633.. 14G2 .07
" " screw (2) ..... 14G3 .16
" " washer (2) ..... 418.. 14G4 .04
PAPER-FEED-PAWL RING group **X14G 2.99**
*14GG is assembled with 14G1. Price. 2.45

Paper-feed-pawl Stud (lower, in 14GG) ..... 843.. **15G .04**

Paper-feed-pawl Stud (upper, in 1GG) .... 16G .26
nut ..... 33.. 16G1 .05
PAPER-FEED-PAWL STUD group ..... **X16G .31**

(For machines prior to 4731 see Note G3)

Paper-feed Spring Box .....
connection (upper) b17G1 1.00
" lock nut ..... a17G12 .20
pin ..... a17G2 .07
" cotter (2) ..... 97.. 17G3 .00
spring ..... 6184.. a17G5 .13
" rod a17G6 1.32
" " nut ..... 17G7 .07
" " washer (2) ..... a17G8 .07
tube a17G9 1.52
PAPER-FEED SPRING BOX group **Xa17G 4.45**

Paper Tension Bar (large, right) ..... 18G .47
arm (right) (2) ..... 18G1 .20
(small, left) ..... 18G2 .40
arm (left) (2) ..... 18G3 .26
" fulcrum pin ..... 18G4 .03
" distance sleeve ..... 18G5 .13
" guide plate ..... 18G6 .47
connecting link (2) ..... 18G7 .07
" " fulcrum pin (in Housing) .. 18G8 .20
" " pin (to lift 18G) ..... 18G9 .03
PAPER TENSION BAR group **X18G 2.79**

(For machines prior to 4453 see Note G4)

Paper-tower Lever a19G 1.32
stud (for 4G) ..... a19G1 .20
" nut ..... 35.. 19G2 .05
stud (for X17G and 54E) ..... a19G3 .20
" nut ..... 310.. 19G4 .07
PAPER-TOWER LEVER group **Xa19G 1.84**

(For machines prior to 6616 see Note G5)

Pin Wheel (rear) ..... d20GG *
(front) ..... a20G1 *
pin (24, in a20G1) ..... 20G2 ★.01
shaft ..... a20G3 *
ratchet ..... 20G4 *
PIN WHEEL group **Xd20G 19.14**
*d20GG is assembled with a20G1, 20G2, a20G3 and 20G4. Order by complete symbol Xd20G.

Winding Spool .....
flange ..... 21G1G *
" bushing (for Driving Pin) ..... 21G2 *
" spring (for holding paper) ..... 21G3 *
plug (rear) 21G4 1.26
shaft ..... 21G5G †
" head ..... 21G6 †
" driving disc ..... 21G7G §
" " " pin ..... 21G8 §
" " " lock nut ..... 310.. 21G9 .07
" spring ..... 658.. 21G10 .13
" " abutment ..... 21G11 .34
" " " tube ..... 21G12 .34
tube ..... 21G13 *
WINDING SPOOL group **X21G 8.61**
*21G1G is assembled with 21G2, 21G3 and 21G13. Price 4.49
†21G5G is assembled with 21G6. Price 1.32
§21G7G is assembled with 21G8. Price .66

(For machines prior to 4348 see Note G6)

Winding-spool Driving Shaft 22G1 1.19
nut ..... 316.. 22G2 .07
WINDING-SPOOL DRIVING SHAFT group **X22G 1.26**

Winding-spool Driving Ratchet 23G 2.98
pawl ..... 23G1G *
" arm ..... 23G2 *
" " operating finger ..... 23G3 .26
" " stop pin ..... 23G4 ★.01
" pin ..... 23G5 ★.04
WINDING-SPOOL DRIVING RATCHET group..**X23G** **4.90**
*23G1G is assembled with 23G2, 23G4 and 23G5. Price 1.66

Winding-spool Operating Spring....662. **24G** **.12**

Winding-spool-spring-box Plunger ..... 25G1 .66
button ..... 25G2 .60
cotter ..... **95**.. 25G3 .00
spring ..... **647**.. 25G4 .07
WINDING-SPOOL-SPRING-BOX PLUNGER group**X25G** **1.33**

Section H

Mechanism for melting metal and forcing it into the Mold, also the supply and drain pipes to their connections with the parts they supply.

(For machines prior to 507 see Note H1)
Air Cock (for air supply, 1-8″) ..... a2H .79
(for air blast) ..... 2H1 .79
AIR COCK group ..... **Xa2H**.. **1.58**

(For machines prior to 507 see Note H2)
Air Pipe
(brass, .190″ x 1 1-2″) ..... a1H .15
(" .190″ x 19″) ..... a1H1 .60
(iron, 1-8″ x 1 1-8″) (2) ..... 1H2 .07
(" 1-8″ x 2 1-4″) ..... 1H3 .11
(" 1-8″ x 3 7-8″) ..... a1H4 .13
(" 1-8″ x 8 1-8″) ..... a1H5 .22
(" 1-8″ x 24″) ..... a1H13 .34
elbow (1-8″) (4) ..... 1H6 .07
expansion elbow ..... 1H7 .47
" " nut ..... 1H8 .11
" " packing (leather) (3) ..... 1H9 .03
tee (1-8″) ..... 1H11 .07
union (brass, .190″) (2) ..... 1H12 .10
" (iron, 1-8″) ..... a1H14 .16
" packing (rubber) ..... a1H15 .01
AIR PIPE group **Xa1H** **3.08**

Air-pipe Clamp see Note H3 ..... X3H

Gas Burner (2-Burner) see Note H4 ..... Xa4H

(Machines prior to 5355, unless equipped with Lead and Rule Mold Attachment or Electric Melting Pot, see Attachments 11CU and 16CU respectively, were equipped with the 2-burner gas burner and its connecting parts; see groups 4H, 6H, 8H, 10H, 11H, 50H and 51H.)

(For machines equipped with the 3-burner gas burner using natural gas instead of artificial gas, also for machines equipped with 3-burner gas burner prior to August 26, 1918, see Note H36.)

Gas Burner (3-burner) ..... b55H1H *
air regulating sleeve (3) ..... 55H2 ★.07
" " " screw (3) ..... **2167**.. a55H3 ★.07
clamp ..... a55H20 .44
" nut ..... **319**.. a55H21 .08
" washer ..... **49**.. a55H31 .07
screen (3) ..... a55H14 .25
" disc (3) ..... a55H33 .06
" holder (3) ..... a55H15 .70
" " collar (3) ..... a55H16 .35
shield (on a37H) ..... a55H27 .53
" pin ..... a55H28 .07
support ..... 55H22 ‡
" bolt ..... a55H32H ‡
" " nut ..... **327**.. a55H29 .11
" cotter ..... **92**.. a55H24 .00
valve (3) ..... 55H4H §
" body ..... a55H9H **
" " bolt ..... **113**.. 55H10 .10
" " pipe (gal. iron 1-4″ x 3 3-4″)... 55H17 ★.12
" " " elbow (45°) ..... 55H18 ★.07
" " " " nipple (gal. iron)... 55H19 ★.20
" " plug (1-4″ iron) (3) ..... 55H12 ★.06
" " " (.190″, brass) (3)....**2235**. 55H11 ★.03
" nozzle (3) ..... a55H5 ★.10
" nut(3) ..... 55H7 ★.11
" " lock nut (3) ..... **392**.. 55H8 .★08
" spring (3) ..... **6185**.. 55H6 ★.13
GAS BURNER group **Xb55H** **30.00**
*b55H1H is assembled with 55H2 and a55H3. Price 11.75
‡a55H32H is assembled with a55H22. Price is 2.00
§55H4H are each assembled with one of a55H5. Price each 1.45
(If natural gas is used, omit VALVES 55H4H and substitute VALVES a55H4H, which are assembled with a55H30. Price each.. 1.45)
**a55H9H is assembled with 55H4H, 55H6, 55H7, 55H8, 55H11, 55H12, 55H17, 55H18 and 55H19. Price 11.25

Gas Burner (for light in Base), see Note H5. X5H

Gas-burner Stand (2-burner) see Note H6... Xa6H

(For machines prior to 5068 see Note H7. For machines equipped with Electric Melting Pot see Atachment 16CU.)
Gas Cock (1-4″ x 1-4″) (for gas supply).... **a7H** **.53**

(For machines prior to 5068 see Note H31. For machines equipped with Electric Melting Pot see Attachment 16CU.)
Gas-cock Operating Handle 56H1 1.58
extension 56H2 1.98
" bolt ..... **123**.. 56H3 .07
" " nut ..... **35**.. 56H4 .05
collar ..... 56H5 .47
" set screw ..... **127**.. 56H6 .07
GAS-COCK OPERATING HANDLE group..... **X56H** **4.22**

(For machines equipped with Electric Melting Pot see Attachment 16CU)
Gas Hose (1-2″ x 19 1-2″) **49H** **1.20**

Gas Hose (3-8″ x 15 3-4″) see Note H37.... 50H

Gas Hose 3-8″ x 19 1-2″) see Note H37..... 51H

Gas Nipple (in a6H) (2) see Note H8..... b8H

(For machines prior to 5068 see Note H9. For machines equipped with Electric Melting Pot see Attachment 16CU.)
Gas Pipe
(iron, 1-4″ x 1 3-8″) ..... 9H .07
(" 1-4″ x 3 3-4″) ..... a9H1 .12
(" 1-4″ x 16 1-8″) ..... b9H2 .34
(" 1-4″ x 1 3-4″) ..... a9H11 .08
elbow (1-4″) (4) ..... 9H5 .07
nipple (1-4″, galv. iron, for 49H) ..... 9H7 .20
union (1-4″, iron) ..... a9H8 .18
" packing (rubber) ..... a9H9 .01
GAS PIPE group **Xb9H** **1.28**

(For machines prior to 8921 see Note H10. For machines equipped with Electric Melting Pot see Attachment 16CU.)
Melting Pot ..... a12H ★6.60
casing ..... a12H2H *
" bracket ..... a12H18 *
" " dowel (2) ..... **58**.. a12H20 ★.04
" " screw (2) ..... **216**.. a12H19 ★.10
" screw (right) ..... 12H8 ★.16
" stud (2) ..... a12H9 ★.11
" " nut (2) ..... **310**.. a12H10 ★.07
" " washer (2) ..... **410**.. a12H11 ★.07
screw (4) ..... **2198**.. a12H25 ★.08
MELTING POT group **Xc12H** **42.58**
*a12H2H is assembled with a12H, 12H8, a12H9, a12H10, a12H11, a12H18, a12H19, a12H20, and a12H25. Order by the complete symbol Xc12H.

Gas Regulating Valve (2) see Note H38..... X10H

Gas-regulating-valve Stand, see Note H39... X11H

(For machines equipped with Lead and Rule Mold Attachment or Electric Melting Pot see Attachments 11CU and 16CU respectively)
Melting-pot Chimney **13H** **1.98**

(For machines equipped with Display Type Attachment or Lead and Rule Mold Attachment see Attachments 9CU and 11CU respectivley)
Nozzle (1-2″) **14H** **1.00**

Nozzle Squaring Pin (for 1-2″ Nozzle).... **15H** **2.30**
(for 5-8″ Nozzle) **15H1** **2.30**

(For machines prior to 5132 see Note H11)
Pipe Bracket ..... b16HH *
plug ..... a16H5 ★.06
screw (large) (2) ..... **28**.. a16H1 .11
" (small) ..... **236**.. a16H3 .07
screen ..... a16H4 .13
PIPE BRACKET group **Xa16H** **4.42**
*b16HH is assembled with a16H5. Price assembled is 4.00

(For special Piston for large display type see Note H32)
(For machines equipped with Display Type Attachment see attachment 9CU)
Piston 17H 3.25
handle ..... 17H1H *
" stem ..... **850**.. 17H2 *
" " nut ..... **314**.. 17H3 *
PISTON group **X17H** **3.75**
*17H1H is assembled with 17H2 and 17H3. Price ..... .50

For use with worn Pump Bodies we furnish:
Piston (.003″ oversize) a17H4 3.25
handle ..... 17H1H *
" stem ..... **850**.. 17H2 *
" " nut ..... **314**.. 17H3 *
PISTON (.003″ oversize) group **X17H4** **3.75**
*17H1H is assembled with 17H2 and 17H3. Price ..... .50

(For machines piror to 4249 see Note H12)
Piston Lever a18H 5.94
bearing (2) a18H1 1.32
" screw (2) ..... a18H3 .07
PISTON LEVER group **Xa18H** **8.72**

(For machines prior to 4910 see Note H13)
Piston Operating Rod 19H 3.64
crosshead (lower, for 21H) 19H1 3.96
" dowel ..... **51**.. 19H2 .07
" (upper, for a18H) a19H3 4.62
nut ..... **330**.. 19H4 .18
PISTON OPERATING ROD group **X19H** **12.47**

(For special Spring for large display type see Note H32.)
(For machines prior to 4493 see Note H14)
Piston Spring ..... **644**.. 20H 1.32
rod 20H1 2.32
" eye ..... a20H2 .73
" " pin ..... **847**.. 20H3 .20
" " " cotter ..... **93**.. 20H4 .00
" nut ..... **329**.. 20H5 .14
washer ..... **46**.. a20H6 .07
PISTON SPRING group **X20H** **4.78**

Pump Bell Crank 21H 4.62
shaft ..... 21H1 .60
" set screw ..... 21H2 .13
PUMP BELL CRANK group **X21H** **5.35**

Pump-bell-crank Connecting Rod ..... 22H .66
eye 22H1 1.32
" lock nut ..... **324**.. 22H2 .10
" (L. H.) 22H3 1.32
" lock nut (L. H.) ..... **325**.. 22H4 .10
" pin (2) ..... 22H5 .13
" " cotter (4) ..... **91**.. 22H6 .00
PUMP-BELL-CRANK-CONNECTING ROD group.**X22H** **3.76**

(For special Pump Body for large Display Type see Note H32. For machines equipped with Lead and Rule Mold Attachment see Attachment 11CU.)
Pump Body ..... 23HH *
bearing (nozzle end, for a26HH) ..... 23H1 ★.13
guide (and stop, for 17H) ..... 23H2 ★1.95
" screw (2) ..... **220**.. 23H3 ★.10
plug (bottom) ..... 23H4 ★.75
regulating screw (for flow of metal) ..... 23H5H †
" " head ..... a23H16 †
" " tip ..... a23H17 †
valve 23H6 1.00
PUMP BODY group **X23H** **15.00**
*23HH is assembled with 23H1 to 23H4 inclusive, 23H5H and 23H6. Order by complete symbol X23H.
†23H5H is assembled with a23H16 and a23H17. Price ..... .75

(For machines prior to 4249 see Note H15)
Pump-body Lever a24H 5.94
bearing (2) a24H1 1.32
" screw (2) ..... a24H3 .07
PUMP-BODY LEVER group **Xa24H** **8.72**

Pump-body Lifting Lever (Piston end)... 25H 5.28
locating latch ..... 25H1 .34
" " screw ..... 25H2 .07
stand (front, on 12HH) ..... 25H3 ■1.26
" (rear, on 12HH) ..... 25H4H■ *
" cap ..... 25H5 ■ *
" " screw (2) ..... **223**.. 25H6 ★.08
" screw (5) ..... **223**.. 25H7 .08
PUMP-BODY LIFTING LEVER group..... **X25H** **10.65**
*25H4H is assembled with 25H5 and 25H6. Price ..... ■3.30
■25H3 and 25H4H should be line reamed in place on the machine.

(For machines prior to 1123 see Note H16)
Pump-body Lifting Lever (Nozzle end)... a26HH *
stud ..... 26H1 .53
" nut ..... **322**.. 26H2 .10
pin (bearing for 23HH) ..... a26H3 ★.13
" nut ..... **35**.. a26H4 ★.05
PUMP-BODY LIFTING LEVER group..... **X26H** **4.93**
*a26HH is assembled with a26H3 and a26H4. Price 4.30

(For machines prior to 1593 not equipped with Display Type Attachment see Note H17)
Pump-body Lifting Spring..... **6108**.. a27H .26
plate (upper) ..... 27H1 .04
" (lower) ..... a27H2 .08
PUMP-BODY LIFTING SPRING group..... **X27H** **.38**

(For machines prior to 913 see Note H18)
Pump-body Operating Rod ..... a28H .47
extension (for 27H1) ..... a28H2 .34
" pin ..... **787**.. 28H3 .03
nut (3) ..... **321**.. 28H4 .13
" lock nut (2) ..... **320**.. 28H5 .08
PUMP-BODY OPERATING ROD group..... **X28H** **1.39**

Pump-body-operating-rod Lever..... 29H 1.39
pin ..... 29H1 .20
" cotter ..... **94**.. 29H2 .00
stand 29H3 1.26
PUMP-BODY-OPERATING-ROD LEVER group... **X29H** **2.85**

Pump-body-operating-rod-lever-stand Support (see Note H43) X30H

(For machines prior to 4533 see Note H19)
Pump-body Spring ..... **645**.. 31H 1.32
rod 31H1 2.98
" crosshead 31H2 3.30
" " eye ..... a31H3 .86
" " " nut ..... **327**.. 31H4 .11
" " " pin ..... **847**.. 31H5 .20
" " " " cotter ..... **93**.. 31H6 .00
" " " washer ..... **45**.. 31H7 .10
" " stop 31H8 1.19
" " " nut ..... **329**.. 31H9 .14
" nut (upper) ..... **329**.. 31H10 .14
" sleeve ..... a31H11 .66
" stop nut (bottom) (2) ..... **331**.. 31H13 .18
PUMP-BODY SPRING group **Xa31H** **11.36**

Pump-lever Connecting Link (between a18H and a24H) 32H 2.98
pin (2) ..... 32H1 .26
" cotter (2) ..... **92**.. 32H2 .00
plunger ..... 32H3 .13
" spring ..... **663**.. 32H4 .11
PUMP-LEVER CONNECTING LINK group..... **X32H** **3.74**

Pump Operating Lever (engaged by 33H1) 34HH *
clamp bolt ..... **110**.. 34H1 ★.11
PUMP OPERATING LEVER group..... **X34H** **2.45**
*34HH is assembled with 34H1. Order by complete symbol X34H.

(For machines prior to 1125 see Note H20)
Pump Rocker Arm 33H 9.24
latch 33H1 2.64
" pin ..... 33H2 .13
" " cotter (2) ..... **91**.. 33H3 .00
plunger ..... a33H4 .34
" spring ..... **6114**.. a33H6 .13
shaft 33H7 1.32
plug ..... a33H8 .53
PUMP ROCKER ARM group **X33H** **14.33**

(For machines prior to 5503 see Note H21)

Pump Trip (hand)
rod..... b35H1H *
" nut.....**310**.. 35H2 .07
" washer.....**415**.. 35H3 .07
" plate..... 35H4 *.34
" " rivet (2).....**7140**.. a35H5 *.01
" stop nut.....**310**.. b35H10 .07
" " washer.....**413**.. a35H11 .07
handle..... a35H12 2.10
" nut..... 35H8 .60
" spring.....**643**.. 35H9 .16
PUMP TRIP group.....**Xa35H 4.80**
*b35H1H is assembled with 35H4 and a35H5. Price..... 1.66

Pump-trip Catch Plate, see Note H22.....X36H

(For machines prior to 7936 see Note H23)

Swing Frame (for 12H)..... b37H *
guide block..... 37H1 1.26
" " screw (2).....**222**.. 37H2 .08
handle..... 37H3H †
" stem.....**850**.. 37H4 †
" " nut.....**314**.. 37H5 †
spring post (for a27H).....**883**.. a37H6 .07
adjusting screw (long).....**119**.. a37H9 .10
" " (short) (2).....**136**.. a37H10 .08
bushing..... a37H1 .38
table..... a37H12H *
" bolt (3).....**15**.. a37H13 *.12
worm shaft..... a37H1412.50
" " nut (2).....**331**.. a37H15 .18
" " thrust bearing..... a37H16 1.50
SWING FRAME group.....**Xb37H 82.35**
†37H3H is assembled with 37H4 and 37H5. Price..... .50
*a37H12H is assembled with b37H and a37H13. Price..... 65.36

(For machines prior to 7936 see Note H24. For machines equipped with Display Type Attachment see Attachment 9CU.)

Swing-frame Post..... b38H 66.00
bolt (to a36EE).....**16**.. 38H1 .18
screw (lower).....**21**.. 38H4 .34
" (upper).....**23**.. 38H5 .13
SWING-FRAME POST group.....**Xb38H 66.65**

(For machines prior to 7936 see Note H41)

Swing-frame Screw (for raising and lowering 12H)..... a39H 14.00
nut.....**327**.. a39H1 .11
washer.....**45**.. a39H2 .10
sleeve..... a39H4 .60
washer (large)..... a39H5 1.00
SWING-FRAME SCREW group.....**Xa39H 15.81**

(For machines prior to 8193 see Note H42)

Swing-frame-screw Crank..... b40HH *
handle..... 40H2 *1.13
pin.....**7178**.. a40H3 *.04
SWING-FRAME-SCREW CRANK group.....**Xb40H 3.75**
*b40HH is assembled with 40H2 and a40H3. Order by complete symbol Xb40H.

(For machines equipped with Electric Melting Pot see Attachment 16CU)

Thermometer..... a41HH *
handle..... a41H7 *
" ferrule..... a41H8 *
support..... a41H2 .34
" hook..... a41H3 .22
" " nut.....**33**.. a41H4 .05
" lock nut.....**310**.. a41H5 .07
" sleeve (support for Mold Oiler).... a41H6 .40
THERMOMETER group.....**X41H 8.58**
*a41HH is assembled with a41H7 and a41H8. Price..... 7.50

(For machines prior to 10055 see Note H25)

Water Escape Valve..... a42H15 1.28
reducing nipple (1-8" to .190").... a42H16 .24
" bushing (5-16" to 1-8").... a42H17 .18
WATER ESCAPE VALVE group.....**Xb42H 1.70**

(For machines prior to 507 see Note H26)

Water Pipe
(brass, drain from a36EE, 5-16" x 9 1-2").. a43H .45
(" " " " 5-16" x 18 7-8") a43H1 .85
(" " " " .190" x 1 3-4").. a43H3 .16
union (5-16") (2)..... 43H2 .15
WATER PIPE group.....**Xa43H 1.76**

(For machines prior to 507 see Note H27)

Water Pipe
(brass, drain from Mold, .190" x 1-4")..... 44H .15
(" " " " .190" x 20 1-2").. a44H1 .60
(" " " " .190" x 14 1-2").. a44H3 .45
union (190") (2)..... 44H2 .10
WATER PIPE group.....**Xa44H 1.40**

(For machines prior to 507 see Note H28)

Water Pipe
(brass, supply, 5-16" x 2 3-8")..... 45H .20
(" " 5-16" x 3").... a45H1 .25
(" " 5-16" x 19 1-4").... a45H3 .85
(iron, supply, 1-8" x 3 3-8").... a45H4 .13
(" " 1-8" x 3 7-8").... a45H5 .13
(" " 1-8" x 15 1-8").... a45H6 .26
(" " 1-8" x 18").... a45H7 .31
elbow (1-8") (3)..... a45H8 .07
union (brass, 5-16") (2)..... 45H2 .15
" (iron, 1-8")..... a45H9 .16
" packing (rubber)..... a45H10 .01
WATER PIPE group.....**Xa45H 2.81**

(For machines prior to 507 see Note H29)

Water Pipe
(iron, drain from Pipe Bracket, 3-8" x 3 3-8").. a46H .16
(" " " " " 3-8" x 4 7-8").. a46H1 .18
(" " " " " 3-8" x 14 1-2"). a46H2 .30
(" " " " " 3-8" x 18") a46H3 .37
elbow (iron, 3-8") (3)..... a46H4 .08
union (iron, 3-8")..... a46H5 .22
" packing (rubber)..... a46H6 .01
WATER PIPE group.....**Xa46H 1.48**

Water-pipe Connection (side, on a36EE).. 47H 1.58
screw (3).....**242**.. 47H1 .05
WATER-PIPE CONNECTION group.....**X47H 1.73**

Water Supply Cock..... **a52H .79**

(For machines prior to 10055 see Note H30)

Water Supply Valve..... a48H18 1.28
reducing bushing (5-16" to 1-8").... a48H19 .18
short nipple (1-8", 3-4" long)..... a48H20 .07
WATER SUPPLY VALVE group.....**Xb48H 1.53**

Part III—Type-&-Rule Caster

CERTAIN GROUPS of parts on the Type-&-Rule Caster are the same as on the Composing Machine or on attachments for the Composing Machine. In the following these are listed only by the group name and symbol; for the individual pieces of these groups refer to the "Main List" of parts for the Composing Machine or to the "Attachment" as indicated. Groups of parts on the Type-&-Rule Caster which are not common to both machines are listed in full.

Section A

Mechanism for carrying the Matrix and holding it accurately on the opening in the Mold while the type is being cast.

The following groups of Section A are common to both Type-&-Rule Caster and the Composing Machine; for individual pieces of these groups see the Main List of the Composing Machine.

Bridge group..... **X1A 46.67**

Bridge Lever group.....**Xa2A 5.42**

Bridge-lever-link group..... **X3A .66**

Carrying Frame group.....**Xa4A 19.90**

Carrying-frame Adjusting Gage..... **32A1 6.60**

Centering-pin Aligning Lever group.....**X35A 2.93**

Centering-pin Micrometer Screw group.**Xa33A 6.29**

Centering-pin Stand group.....**Xc6A 12.38**

Fibre Stop group..... **X7A .47**

Matrix Holder group (for Cellular Matrices **X40A 12.50**

Matrix-holder Slide (for .2" x .4" Matrices **b40A10A 4.80**

Matrix-holder Slide (for .2" x .6" Matrices) **b40A13A 4.80**

Matrix Holder group (for Electro Display Matrices).....**X41A 30.00**
(also special Abutments and Clamps for X41A)

Mold Oiler group.....**X50A 5.94**

Sliding Frame group.....**Xa9A 17.34**

In addition to the above the Type-&-Rule Caster includes the following:

(For machines prior to 4603 see Note A20)

Centering Pin..... d5AA *
adjusting nut..... 5A1 .26
extension..... a5A6 1.00
" nut.....**35**.. a5A7 .05
" " lock nut.....**37**.. a5A8 .05
" washer (2).....**413**.. a5A13 .07
guide pin.....**7176**.. a5A12 *.01
spring.....**668**.. a5A3 .16
" abutment (lower)..... a5A11 2.33
" " (upper)..... a5A5 .92
CENTERING PIN group.....**Xd5A 9.53**
*d5AA is assembled with a5A12. Price 4.62

Centering-pin Auxiliary Spring (2)..**62**.. 36A1 .11
abutment (lower)..... a36A2A *
" (upper)..... a36A3 3.64
" stud (2)..... 36A4 *.13
" " nut (2).....**35**.. 36A5 .05
" " washer (2).....**419**.. 36A6 .04
CENTERING-PIN AUXILIARY SPRING group.**Xa36A 7.94**
*a36A2A is assembled with 36A4. Price 3.90

(For machines prior to 3924 see Note A21)

Centering-pin Guide..... 27A1 1.98
screw.....**247**.. 27A2 .04
CENTERING-PIN GUIDE group.....**X27A 2.02**

Section B

Mechanism for positioning the Matrix Holder right and left and removing the type after it has been ejected from the Mold.

The following groups of Section B are common to both the Type-&-Rule Caster and the Composing Machine; for individual pieces of these groups see the Main List of the Composing Machine.

(For machines prior to 4658 see Note B10)

Normal-wedge-locking-pin Stand group**Xb15B 20.27**

(For machines prior to 4608 see Note B12)

Type Carrier group (including Eye 21B1B, Clamp Xd26B, Shoe Xc27B, and Spring Xc31B).....**Xd20B 47.24**

Type-carrier Connecting Rod group....**Xa21B 3.60**

(For machines prior to 4368 see Note B13)

Type-carrier Extension group.....**X22B .93**

(For machines prior to 4608 see Note B14)

Type-carrier Shoe group.....**Xb23B 2.88**

(For machines prior to 4608 see Note B15)

Type-carrier Shoe group.....**Xb24B 1.16**

(For machines prior to 520 see Note B16)

Type-carrier-spring-abutment Stand group.....**Xa25B 1.50**

(For machines prior to 4608 see Note B17)

Type Clamp group.....**Xd26B 4.20**

(For machines prior to 4608 see Note B18)

Type-clamp Shoe group.....**Xc27B .75**

(For machines prior to 3883 see Note B19)

Type Pusher group.....**Xb29B 8.11**

(For machines prior to 1203 see Note B20)

Type-pusher Guide group.....**Xa28B 2.99**

(For machines prior to 4608 see Note B22)

Type Support Spring group.....**Xc31B 2.61**

In addition to the preceding the Type-&-Rule Caster includes the following:

(For machines prior to 7143 see Note B33)

Air-pin Block..... a3B1175.00
dowel (left).....**51**.. 3B1 .07
" (right).....**53**.. 3B2 .07
screw (5/16" x 1-5/8") (2).....**212**.. 3B3 .10
" (5/16" x 15/16").....**215**.. 3B4 .10
" (¼" x 1-7/16").....**218**.. 3B5 .10
" (¼" x 1-¼").....**219**.. 3B6 .10
" (¼" x 7/8").....**222**.. 3B7 .08
AIR-PIN BLOCK group.....**Xa3B11 75.72**

Air-pin-block Cover Plate (see Note B29)..Xa33B

(For machines prior to 4603 see Note B30)

Matrix-holder Positioner..... 34B1 2.64
lock pin..... 34B2 .66
" " guide pin.....**7158**.. 34B3 .04
" " head..... 34B4 .20
" " spring.....**632**.. 34B5 .07
plug..... 34B6 .13
MATRIX-HOLDER POSITIONER group.....**X34B 3.74**

(For machines prior to 4884 see Note B31)

Matrix-holder-positioner Guide Rod.... a35B1* 1.32
screw..... 35B2 .03
MATRIX-HOLDER-POSITIONER GUIDE ROD group.....**Xa35B 1.35**
*This ROD a35B1 required in order to use MATRIX HOLDER X41A but cannot be used with prior MATRIX HOLDERS for Electro Display Matrices (see Note B30).

(For machines prior to 4603 see Note B32)

Matrix-jaw-shoe Packing Block (left, large)..... b9B 1.98
dowel..... 9B2 .05
screw (top).....**220**.. a9B3 .10
clamp (lower)..... a9B5 .20
" (upper)..... a9B6 .13
" screw.....**231**.. a9B7 .08
screw (rear).....**221**.. a9B8 .08
" (front).....**227**.. a9B9 .08

Normal-wedge Locking Pin..... b14B 2.64
bushing..... a14B3 3.69
" adjusting sleeve..... 14B4 .40
" " nut..... 14B5 .26
" guide screw..... a14B6 .07
lifting handle..... a14B12 .28
" " lock nut.....**312**.. 14B2 .07
shank..... a14B7 .26
spring.....**669**.. b14B8 .26
" abutment (upper)..... 14B10 .79

(For machines prior to 7143 see Note B34)

Pin-jaw-guide-rod Stand..... a36B3 2.50
screw.....**2223**.. a36B4 .07
PIN-JAW-GUIDE-ROD STAND group.....**Xa36B3 2.57**

Section C

Mechanism for positioning the Matrix Holder forward and back, drawing the Mold Blade back for the proper size type body, shifting the upper Mold Blade for high or low space material, and ejecting the type from the Mold.

The following groups of Section C are common to both the Type-&-Rule Caster and the Composing Machine; for individual pieces of these groups see the Main List of the Composing Machine.

Cross-slide-extension Shoe group **X6C** **2.26**

Cross-slide Guide group **Xa7C** **7.41**

Mold-blade-abutment-slide Spring 612 .. **15C** **.08**

In addition to the above the Type-&-Rule Caster includes the following:

(For machines prior to 7143 see Note C28)

Air-pin Block		a3C9C	*
stop pin		a3C10	*
dowel (No. 6 x 2½″)	51	3C1	.07
" (No. 6 x 2″)	52	3C2	.07
" (No. 5 x 1¼″)	56	3C3	.05
screw (5/16″ x 1-5/8″) (2)	212	3C4	.10
" (5/16″ x 2½″) (2)	211	3C5	.12
" (¼″ x 5/8″) (2)	223	3C6	.08
spring post	896	b3C7	.08
AIR-PIN BLOCK group **Xa3C9**			**63.87**

*a3C9C is assembled with a3C10. Price 63.00

Air-pin-block Cover Plate (See Note C29) X29C

(For machines prior to 5293 see Note C22)

Cross Slide		c5CC	*
draw rod clamp screw	223	a5C2	★.08
extension		a5C3	*
" rivet (long)	728	5C4	★.07
" " (short)	7179	a5C7	★.03
plate (stop for Matrix case)		a5C9	★.75
" rivet (long) (2)	7207	a5C10	★.01
" " (short)	721	a5C11	★.01
positioner		a5C8	.34

*c5CC is assembled with a5C2, a5C3, 5C4, a5C7, a5C9, a5C10 and a5C11. Price 11.00

(For machines prior to 4049 see Note C12)

Mold-blade Abutment Slide		c14CC	*
adjusting screw		b14C1	★1.00
" " lock spring		a14C10	★.20
" " nut		a14C12	★.20
" " spring (spiral)	6174	a14C13	★.07
anvil		a14C3	★1.66
" screw (2)	247	14C7	★.04
pin (for a14C10)		a14C11	★.03
spring post		14C8	★.04
MOLD-BLADE ABUTMENT SLIDE group **Xc14C**			**12.52**

*c14CC is assembled with b14C1, a14C3, 14C7, 14C8 and a14C10 to a14C13 inclusive. Order by complete symbol Xc14C.

Mold-blade-abutment-slide-abutment-screw Packing Piece **32C1** **1.98**

(For machines prior to 4049 see Note C23)

Mold-blade Operating Rod		a16C	1.32
distance sleeve		a16C1	.20
ejecting spring (long)	6186	a16C2	.28
" " (short)	6187	a16C17	.20
" " abutment		16C3	.34
" " sleeve		b16C4	.26
fork		b16C5	3.50
" pin		a16C6	.66
" " spring		c16C7	.13
" " " screw (2)	247	a16C8	.04
nut (rear)	310	16C9	.07
" lock nut	312	a16C15	.07
" (front)		a16C16	.50
sizing spring	613	16C10	.26
" " sleeve (inside)		a16C11	.20
" " " (outside)		a16C12	.20
" " abutment (front)		16C13	.20
" " " (rear)		16C14	.20

(For machines prior to 4049 see Note C24)

Mold-blade Shifter		26C1C	*
extension		26C2	.66
" nut	310	26C3	.07
" " lock nut	312	26C4	.07
" spring	616	26C5	.26
latch		26C6	★.66
" rivet (2)		26C7	★.04
MOLD-BLADE SHIFTER group **X26C**			**4.40**

*26C1C is assembled with 26C6 and 26C7. Price 3.34

(For machines prior to 4049 see Note C25)

Mold-blade-shifter-extension Guide		27C1	.66
screw (2)	223	27C2	.08
MOLD-BLADE-SHIFTER-EXTENSION GUIDE group **X27C**			**.82**

(For machines prior to 4049 see Note C26)

Mold-blade-shifter Bell Crank **28C1** **3.30**

Normal-wedge Abutment		a17C3	3.25
screw (2)	236	17C2	.07
NORMAL-WEDGE ABUTMENT group **X17C3**			**3.39**

(For machines prior to 4049 see Note C27)

Wedge Cover		a24C10C	*
bracket		a24C2	★.50
" screw (long) (2)	2160	a24C4	.04
" " (short)	250	a24C5	.04
" stud		a24C6	★.08
" " cotter	97	a24C7	.00
rivet	7177	a24C9	★.01
WEDGE COVER group **X24C10**			**1.12**

*a24C10C is assembled with a24C2, a24C6 and a24C9. Price 1.00

Section D

Mechanism for determining the size type to be cast and for bringing the Space Transfer Wedge into position for every cast.

The following groups of Section D are common to both the Type-&-Rule Caster and the Composing Machine; for individual pieces of these groups see the Main List of the Composing Machine.

Galley Trip Rod group ..... **Xa8D** **.57**

Galley-trip-rod Arm group **Xa9D** **2.60**

Justification Wedge (front or .0075″) **10D** **6.60**
Regrinding and testing worn JUSTIFICATION WEDGE 3.25

Justification Wedge (rear or .0005″) **11D** **6.60**
Regrinding and testing worn JUSTIFICATION WEDGE 3.25

Justification-wedge Centering Tooth group **X12D** **2.08**

Justification-wedge Lever group **X13D** **3.30**

Justification-wedge Lever group **X14D** **3.30**

Justification-wedge-lever Fulcrum Pin .. **18D** **.05**

Micrometer Wedge group **Xa20D** **4.08**

Pump-trip Operating Lever group **X48D** **1.30**

Pump-trip Tube group **Xa49D** **1.61**

Pump-trip Spring group ..... **X50D** **.24**

Pump-trip-tube-spring Post ..... 893 .. **51D** **.04**

Space Transfer Wedge group **Xa52D** **5.69**
Regrinding and testing worn SPACE TRANSFER WEDGE 2.50

In addition to the above the Type-&-Rule Caster includes the following:

(For machines prior to 7143 see Note D12)

Air-pin Block		a3D16	25.00
dowel (2)	55	3D4	.05
screw (4)	216	3D5	.10
AIR-PIN BLOCK group **X3D16**			**25.50**

Justification Wedge (rear) (for display type) **a11D1** **6.60**
Regrinding and testing worn JUSTIFICATION WEDGE 3.25

Justification-wedge Position Plate		66D1	.40
screw (2)	251	66D2	.04
JUSTIFICATION-WEDGE POSITION PLATE group **X66D**			**.48**

(For machines prior to 2997 see Note D11)

Normal Wedge		c21D1D	*
handle		b21D5	★.26
NORMAL WEDGE group **Xb21D1**			**6.60**

*c21D1D is assembled with b21D5. Order by complete symbol Xb21D1.
Regrinding and testing display type NORMAL WEDGE 3.25

Normal-wedge Position Plate		67D1	.40
screw (2)	251	67D2	.04
NORMAL-WEDGE POSITION PLATE group **X67D**			**.48**

Space-transfer-wedge Operating Rod		a53DD	*
nut	33	53D1	.05
spring	618	a53D5	.26
" abutment		a53D6	.65
yoke		a53D4	★.34

*a53DD is assembled with a53D4. Price 2.75

Transfer-wedge-operating-rod Guide		68D1	1.50
screw (2)	223	68D2	.08
TRANSFER-WEDGE-OPERATING-ROD GUIDE group **X68D**			**1.66**

Transfer-wedge Shifter		55D	1.98
spring abutment (upper)		55D4	.20
nut	310	55D5	.07

Section E

Mechanism for receiving power from the belt and transmitting it to the various portions of the machine (includes also the piping in the Main Stand).

The following groups of Section E are common to both the Type-&-Rule Caster and the Composing Machine; for individual pieces of these groups see the Main List of the Composing Machine.

Base group **Xa1E** **198.78**

Belt Shifter Eye **4E** **1.66**

Cam-lever Shaft (front) **7E** **1.85**

Cam-lever-shaft Stand group **Xa9E** **26.92**

Cam-shaft Stand group **Xa12E** **132.96**

(For machines prior to 3748 see Note E43)
Cam-shaft-stand Packing Piece (2) each. **168E1** **.07**

Centering-pin Cam group **Xa13E** **7.50**

Centering-pin-cam Lever group **Xa14E** **19.93**

(For machines equipped with Rule Mold Operating Attachment see Note E63)
Centering-pin-cam-lever Shaft **15E** **1.58**

(For machines prior to 2322 see Note E10)
Centering-pin Lever group **Xa16E** **17.66**

Door group **X17E** **5.94**

Gear Vernier group **X20E** **1.74**

Mold-blade Bell Crank group **X41E** **5.28**

Mold-blade Cam group **X43E** **7.50**

(For machines prior to 4049 see Note E64)
Mold-blad-carrier-latch Bell Crank group **Xa87E** **2.20**

Mold-blade Connecting Rod group ..... **X45E** **.89**

Mold-blade-connecting-rod Ball Socket group **X46E** **2.12**

Mold-blade-connecting-rod Ball Socket group **X47E** **2.12**

Mold Clamp (front) ..... **89E1** **.26**

(For machines prior to 1843 see Note E27)
Mold Clamp (side) group ..... **X49E** **.51**

(For machines prior to 1843 see Note E28)
Mold-clamp Stud group ..... **Xa48E** **.25**

Mold Screw (1-4″ x 1 1-4″) (3) (each) ..... **a50E** **.11**

(For machines prior to 3748 see Note E30)
Oil Guard **113E1** **3.96**

(For machines prior to 7120 see Note E31)
Oil Pan group **X114E** **7.50**

(For machines prior to 4493 see Note E32)
Oil-pan Shelf group **X115E** **17.88**

(For machines prior to 3748 see Note E33)
Oil-pan-shelf-bracket Bolt (7) (each) 2216 .. **116E1** **.11**

Pulley (driving) **64E** **7.26**

Pump Cam group **X66E** **7.50**

Pump-cam Lever group **X67E** **15.18**

Pump-cam-lever Connecting Rod group . **X68E** **3.76**

Type-carrier Cam group **X71E** **7.50**

Type-carrier-cam Lever group **Xa72E** **18.30**

Type-pusher Bell Crank group **X73E** **5.28**

Type-pusher-bell-crank Fulcrum Stud group ..... **X74E** **.51**

(For machines prior to 4227 see Note E38)
Type-pusher Cam group **X75E** **10.29**

Type-pusher-cam Lever group **X76E** **15.18**

(For machines prior to 1151 see Note E39)
Type-pusher Connecting Rod group **X77E** **3.32**

Type-pusher-connecting-rod Ball Socket group **X78E** **2.12**

Water Connection group ..... **X79E** **.50**

In addition to the above the following groups of the Display Type Attachment (Attachment 9CU) are a standard part of the Type-&-Rule Caster; for individual pieces of these groups see Attachment 9CU.

The following are from Part A of Attachment 9CU:

Mold-blade-cam Lever group **Xa44E6** **19.05**

Mold-blade-cam-lever-compound-lever Abutment group **X96E** **1.15**

The following are from Part B of Attachment 9CU:

(For machines with Motor on Cam Shaft side or with superseded Cone Pulleys see Note E46)
Belt Shifter Arm group **X3E5** **1.79**

(For machines prior to 3338 see Note E48)
Belt-shifter-operating-bar Connecting Rod group **Xa98E** **1.21**

(For machines prior to 3338 see Note E49)
Belt-shifter-operating-bar Connecting-rod Guide group ..... **X99E** **.82**

(For machines prior to 3338 see Note E50)
Belt-shifter Ring group **Xb5E3** **6.14**

Belt-shifter-ring Rod group **X6E3** **2.00**

(For machines prior to 3338 see Note E51)
Clutch Control Shaft group **Xa101E** **3.30**

Clutch Control Operating Rod group ... **X102E** **1.52**

Clutch-control-operating-rod-eye Pin group ..... **X103E** **.66**

Clutch Gear **104E1** **9.92**

(For machines prior to 3338 see Note E52)
Clutch Shifter group **Xa105E** **5.94**

(For machines prior to 3085 see Note E62)
Clutch-shifter Spring group....X106E .24

Gear Cover group....X107E 4.78

Interlocking Lever group....X108E 6.60

Interlocking-lever Spring....623.. 111E1 .11

Interlocking-lever Fulcrum Stud.... 112E1 .66

(For machines prior to 4208 see Note E37)
Pulley (loose) group....Xa65E2 7.26

Sliding Gear.... 117E1 13.20

Sliding-gear Shifter.... 118E1 4.62

Sliding-gear-shifter Yoke group....X119E 3.21

Sliding-gear Hollow Shaft group....X120E 5.28

Sliding-gear Safety Lever group....X121E 4.62

(For machines prior to 4313 see Note E53)
Speed Bracket group....X122E 134.92

Speed-bracket Cone Shaft group....X123E 32.50

Speed-bracket Driving Shaft (front) group....X124E 20.35

Speed-bracket Driving Shaft (rear) group....X125E 21.01

Speed-bracket Quadrant.... 126E1 5.28

Speed-bracket-quadrant Bolt (2) (each)....110.. 127E1 .11

Speed-bracket-quadrant-bolt Nut (2) (each)....314.. 128E1 .07

Speed-bracket-quadrant Shaft group...X129E 8.78

Speed-bracket Screw (long)....2217.. 130E1 .13

Speed-bracket Sliding Shaft group....X131E 25.94

(For machines prior to 3596 see Note E54)
Speed Index Plate group....X132E 1.90

Tumbler group....X133E 27.18

In addition to the above the Type-&-Rule Caster includes also the following:

Belt-shifter Operating Bar.... a97E2 2.11

Belt-shifter-operating-bar Lever.... 100E1 1.32
bracket.... 100E2 1.32
" clamp screw....213.. 100E3 .10
stud.... 100E6 .20
" nut....314.. 100E7 .07

Cam-lever Shaft (rear).... 8E 1.58
set screw.... 8E2 .13

Cam-lever-shaft Distance Ring (on 7E).. 93E1 1.50

Cam Shaft (driving).... 10E 15.84
cam key.... 10E1 .20
distance ring (replaces 86E).... 10E2 1.00
" " " 69E).... a10E7 1.25
" " " 23E and 52E).... a10E8 2.25
gear (graduated).... 10E5 6.60
" key.... 10E6 .13
key (for 64E).... 10E3 .07
nut (for 64E)....332.. 10E4 .16
CAM SHAFT Xe10E, see Note under CAM SHAFT Xb11E.

Cam Shaft (driven).... 11E 14.20
cam key.... 11E1 .20
distance ring (for 86E).... 11E2 1.00
" " (replaces 69E1).... a11E5 1.25
" " " 23E1 and 52E1)... a11E6 2.25
gear.... 11E3 5.94
" key.... 11E4 .13
CAM SHAFT Xb11E, see note below.
NOTE: CAM SHAFTS are furnished only in pairs, that is, Xe10E and Xb11E complete with the following CAMS in place: Xa13E, X43E, X66E, X71E, X75E. Price per pair.... 92.76
Should it be necessary to replace a pair of CAMS the two SHAFTS Xe10D and Xb11E must be returned to our factory. No charge other than for the parts used is made for repairing CAM SHAFTS.

Gear Cover (front).... a19E3 5.94
screw (lower)....223.. 19E1 .08
" (upper)....219.. 19E2 .10
GEAR COVER group....X19E3 6.12

(For machines prior to 4674 see Note E44)
Interlocking-lever Operating Rod....b109E7 .66
eye....a109E2E *
" pin....a109E3 *
" " cotter....95.. 109E4 .00
" " washer....412..a109E6 .07
lock nut....314.. 109E5 .07
INTERLOCKING-LEVER OPERATING ROD group....X109E7 1.80
*a109E2E is assembled with a109E3. Price assembled is.... 1.00

Main-stand-air-pipe Cover (see Note E65)...X94E

(For machines prior to 7143 see Note E67)
Main Stand....a36E41E
bolt....11.. 36E34 .26
" nut....327.. 36E35 .11
bolt....12.. 36E36 .26
" (3)....13.. 36E37 .13
" nut (4)....322.. 36E38 .10
MAIN STAND group....Xa36E41 251.42
*a36E41E is assembled with 36E33, a36E39 and 45H. Price.... 250.00

Mold-blade-bell-crank Stud.... a42E4 .60
nut (lower)....327.. 42E1 .11

Name Plate.... 197E1 .79
screw (4)....251.. 197E2 .04
NAME PLATE group....X197E .95

Starting Bar.... 169E1 1.98
handle.... 169E2 1.32
rivet (2)....787.. 169E3 .03
STARTING BAR group....X169E 3.36

(For machines prior to 7591 see Note E66)
Starting-bar Lock Bracket....a170E1 2.64
bolt....15.. 170E2 .12
STARTING-BAR LOCK BRACKET group....X170E 2.76

(For machines prior to 7591 see Note E66)
Starting-bar-lock-bracket Stud....a171E1 .20
nut....35.. 171E2 .05
STARTING-BAR-LOCK-BRACKET STUD group.X171E .25

Starting-bar Stud (for a97E2).... 172E1 .20
nut....35.. 172E2 .05
STARTING-BAR STUD group....X172E .25

(For machines prior to 5673 see Note E40)
Worm Shaft.... a80E 5.60
collar (front).... a80E7 .60
" (rear).... a80E13 2.35
gear.... 80E1 5.94
hand wheel.... 80E2 6.60
key (long, for 80E1 and 80E2).... a80E4 .10
nut....329.. 80E5 .14
WORM SHAFT group....Xe80E 21.33
Parts 80E2, 80E5 and a80E7 can be applied outside our factory; for any other parts the complete Worm Shaft must be returned to our factory. No charge other than for parts used is made for repairing Worm Shafts.

Section F

Mechanism for holding the Galley Pan and for guiding the type from the Type Carrier.

The following groups of Section F are common to both the Type-&-Rule Caster and the Composing Machine; for individual pieces of these groups see the Main List of the Composing Machine.

(For machines prior to 4750 see Note F4; for machines equipped with Automatic Cutter see Note F4 and Attachment 12CU)
Galley-pan Shelf group....Xa17F 13.62

(For machines prior to 4750 see Note F20; for machines equipped with Style LF (Piece Lead) Mold see Note F20 and Attachment 13CU)
Type Channel Block (adjustable) group..Xa50F 17.10

(For machines prior to 3093 see Note F21; for machines equipped with Style LF (Piece Lead) Mold see Note F21 and Attachment 13CU)
Type Channel Block (fixed) group....Xa51F 8.20

In addition to the above the Type-&-Rule includes the following:

(For machines prior to 4750 see Note F5)
Galley-pan Support.... a18F 6.60
bar (2).... a18F1 .92
bevel nut (2).... 18F2 .13
" " wing bolt (2).... a18F3 .13
" " " " washer (2).... a18F8 .07
corner block (rear).... 18F5 .34
" " (front).... 18F6 .34
wing bolt (2).... c18F7F *
" " pin (2).... a18F9 *
*c18F7F is assembled with a18F9. Price .... .25

(For machines prior to 3523 see Note F26)
Type Channel Block (fixed) (for display type).... b51F14F *
facing.... a51F16 *
" rivet (2)....7158.. a51F8 *.04
" " (2)....7226.. a51F17 *.04
latch.... a51F3 *1.40
" screw....2204.. a51F9 *.05
screw (rear)....231.. a51F13 *.08
TYPE CHANNEL BLOCK group....Xa51F14† 8.00
*b51F14F is assembled with a51F3, a51F8, a51F9, a51F13, a51F16 and a51F17. Order by the complete symbol Xa51F14.
†The SCREW 51F5 furnished as part of BLOCK Xa51F is used also with this BLOCK Xa51F14.

(For machines prior to 4658 see Note F27)
Type-channel-block Stand.... a70F1 46.20
dowel....53.. 70F2 .07
plate.... 70F3 4.00
" screw....236.. 70F4 .07
screw....22.. 70F5 .13
" ....26.. 70F6 .12
TYPE-CHANNEL-BLOCK STAND group....Xa70F 50.59

Section H

Mechanism for melting metal and forcing it into the Mold, also the supply and drain Pipes to their connections with the parts they supply.

The following groups of Section H are common to both the Type-&-Rule Caster and the Composing Machine; for individual pieces of these groups see the Main List of the Composing Machine.

Air Cock group....Xa2H 1.58

(Machines prior to 5355 unless equipped with the Lead and Rule Mold Attachment or Electric Melting Pot, see Attachment 11CU and 16CU respectively, were equipped with the 2-burner Gas Burner and its connecting parts, see Groups 4H, 6H, 8H, 10H, 11H, 50H and 51H. For machines equipped with the 3-burner Gas Burner using natural gas instead of artificial gas, also for machines equipped with the 3-burner Gas Burner prior to August 26, 1918, see Note H36.)
Gas Burner group....Xb55H 30.00

(For machines prior to 5068 see Note H7; for machines equipped with Electric Melting Pot see Attachment 16CU.)
Gas Cock (1-4″ x 1-4″) (for gas supply).... a7H .53

(For machines prior to 5068 see Note H31; for machines equipped with Electric Melting Pot see Attachment 16CU.)
Gas-cock Operating Handle group....X56H 4.22

(For machines equipped with Electric Melting Pot see Attachment 16CU.)
Gas Hose (1-2″ x 19 1-2″).... 49H 1.20

(For machines prior to 5068 see Note H9; for machines equipped with Electric Melting Pot see Attachment 16CU.)
Gas Pipe group....Xb9H 1.28

(For machines prior to 8921 see Note H10; for machines equipped with Electric Melting Pot see Attachment 16CU)
Melting Pot group (with magnesia packing)....Xc12H 42.58

(For machines equipped with Lead and Rule Mold Attachment or Electric Melting Pot see Attachment 11CU and 16CU respectively)
Melting-pot Chimney.... 13H 1.98

(For machines equipped with Lead and Rule Mold Attachment see Attachment 11CU)
Nozzle (1-2″) (for new Pump Body) (for body type).... 14H 1.00
(5-8″) (for retapped Pump Body) (for body type).... 14H1 1.00

Nozzle Squaring Pin (for 1-2″ Nozzle).... 15H 2.30
(for 5-8″ Nozzle).... 15H1 2.30

Pipe Bracket group....Xa16H 4.42

(For special Piston for large display type, see Note H32)
Piston group (for body type)....X17H 3.75

For worn Pump Bodies we furnish:
Piston group (.003″ oversize) (for body type) X17H4 3.75

(For machines prior to 4249 see Note H12)
Piston Lever group....Xa18H 8.72

Piston Spring group....X20H 4.78

Pump Bell Crank group....X21H 5.35

Pump-bell-crank Connecting Rod group X22H 3.76

(For special Pump Body for large display type see Note H32; for machines equipped with Lead and Rule Mold Attachment see Attachment 11CU)
Pump Body group....X23H 15.00

(For machines prior to 4249 see Note H15)
Pump-body Lever group....Xa24H 8.72

Pump-body Lifting Lever group....X25H 10.65

(For machines prior to 1123 see Note H16)
Pump-body Lifting Lever group....X26H 4.93

Pump-body Lifting Lever group....X27H .38

(For machines prior to 913 see Note H18)
Pump-body Operating Rod group....X28H 1.39

Pump-body-operating-rod Lever group..X29H 2.85

Pump-body-operating-rod-lever-stand Support (see Note H43)....X30H

Pump-body Spring group....Xa31H 11.36

Pump-lever Connecting Link group....X32H 3.74

Pump Operating Lever group....X34H 2.45

(For machines prior to 1125 see Note H20)
Pump Rocker Arm group....X33H 14.33

(For machines prior to 4657 see Note H35)
Pump Trip group....Xa35H 4.80

(For machines prior to 7936 see Note H23)
Swing Frame group....Xb37H 82.35

(For machines prior to 7936 xee Note H41)
Swing-frame Screw group....Xa39H 15.81

(For machines prior to 8193 see Note H42)
Swing-frame-screw Crank group....Xb40H 3.75

(For machines equipped with Electric Melting Pot see Atachment 16CU)

Thermometer group..... X41H 8.58

(For machines prior to 10055 see Note H25)

Water Escape Valve group..... Xb42H 1.70

Water Pipe group..... Xa43H 1.76

Water Pipe group..... Xa44H 1.40

Water Pipe group..... Xa45H 2.81

Water Pipe group..... Xa46H 1.48

Water-pipe Connection group..... X47H 1.73

Water Supply Cock..... a52H .79

(For machines prior to 10055 see Note H30)

Water Supply Valve group..... Xb48H 1.53

The following groups are common to both the Type-&-Rule Caster and the Display Type Attachment; for individual pieces of these groups see Part A of Attachment 9CU (Display Type Attachment).

Latch group..... X57H 3.08

Latch Abutment group..... X58H 3.08

Latch-abutment Spring..... 6107.. 59H1 .16

Latch Pin group..... X60H 2.64

Latch Spring..... 6101.. 61H1 .07

Latch Stand group..... X62H 4.40

Nozzle (1-2″) (for new Pump Body) (for Display Type)..... a14H2 1.00

5-8″) (for retapped Pump Body) (for Display Type)..... a14H3 1.00

(For special piston for large display type see Note H32)

Piston group (for Display Type)..... X17H5 3.75

For worn Pump Bodies we furnish:

Piston group (for Display Type) (.003″ oversize)..... X17H6 3.75

Pump-body-spring-rod Stop Block group X63H* 1.66

*Machines prior to 4248 have also Washer 63H4, price 13 cents.

Pump-body-spring-rod-stop-block Spring..... 623.. 64H1 .11

In addition to the above the Type-&-Rule Caster includes the following:

(For machines prior to 7143 see Note H40)

Air Pipe (copper, 190″ x 1 1-2″)	a1H	.15
copper, .190″ x 19″)	a1H1	.60
iron 1-8″ x 3 7-8″)	a1H4	.13
“ 1-8″ x 8 1-8″)	z1H5	.22
“ 1-8″ x 24″)	a1H13	.34
elbow (1-8″) (3)	1H6	.07
union (brass, .190″) (2)	1H12	.10
“ (iron, 1-8″)	a1H14	.16
“ packing (rubber)	a1H15	.01
Piston Operating Rod	19H	3.64
crosshead (lower, for 21H)	19H1	3.96
“ dowel..... 51..	19H2	.07
“ (upper, for a18H)	a19H3	4.62
“ stud	a19H5	.26
“ “ nut..... 314..	a19H6	.07
“ “ “ lock nut..... 315..	a19H7	.07
nut..... 330..	19H4	.18

(For machines prior to 7936 see Note H24)

Swing-frame Post	b38H	66.00
bolt (to a36EE)	38H1	.18
screw (lower)..... 21..	38H4	.34
“ (upper)..... 23..	38H5	.13
spring post (for 64H1)..... 894..	a38H6	.13

Part IV—Notes—Section A

(For all Other Parts of this Price List)

These Notes contain information about parts which differ from those now furnished with the standard machines or attachments. They are mostly superseded parts which are still required for repairs. Reference to these Notes is made in the parenthesized lines preceding the affected groups in the other parts of this Price List.

Note A1—Machines prior to 4109, except 4085 to 4102 inclusive, were equipped with the following part:

Bridge..... 1AA

and omitted b1A11 and a1A12.

This superseded style of Bridge will no longer be furnished.

To apply the improved part see Improvement No. 2.

Machines prior to 2821 were equipped with the following parts:

Bridge bushing adjusting screw (front)..... 1A8

“ “ “ (rear)..... 1A9

These parts will no longer be furnished. Order instead the new Screws 1A9 which are interchangeable with these superseded Screws.

Machines prior to 2203 which were not equipped with the Low Quad Device were equipped with the following parts:

Bridge bushing nut (flats on two sides only) (2)..... 1A7

This style Nut 1A7 will no longer be furnished.

The improved Nut 1A7 (hexagonal) is interchangeable with it and will be furnished instead.

Note A2—Machines prior to 4113 were not equipped with the following parts:

Bridge Bracket spring (2)..... 6123.. a10A10

“ pin..... 881.. a10A9

The above machines were instead equipped with the Springs a24A1 and a24A2. See Note A14.

To apply the improved parts see Improvement No. 3.

Machines prior to 2203, which were not equipped with Low Quad Device, were not equipped with Group X10A.

To apply the improved parts see Improvement No. 1.

Note A3—Machines 2203 to 5539 inclusive, were equipped with the following parts:

Bridge-bracket-yoke Link (left)..... 17A1 .60

(right)..... 17A2 .60

To apply the improved parts see Improvement No. 3.

Machines prior to 2203, which were not equipped with Low Quad Device, were not equipped with groups X12A, X13A, X17A, X20A, X21A or X30A.

To apply the improved parts see Improvement No. 1.

Note A4—Machines 2203 to 4112 inclusive were equipped with the following parts:

Bridge-bracket Yoke Stud (2)..... 16A4 *

*16A1A ia assembled with 16A4. If this part is required order the improved part from the Main List, which can be applied without other change.

To apply the improved parts see Improvement No. 3.

Machines prior to 2203, which were not equipped with Low Quad Device, were not equipped with Group X16A.

To apply the improved parts see Improvement No. 1.

Note A5—Machines 503 to 4007 inclusive were equipped with the following part:

Bridge Lever..... a2A

and omitted the Bushings a2A7.

This Lever a2A will no longer be furnished. Order instead Lever b2AA (see Main List) which is interchangeable with it.

Machines prior to 503 were equipped with the following part:

Bridge Lever..... 2A 2.50

To apply the improved part see Imrpovement No. 4.

Note A6—Machines prior to 2514 were equipped with the following parts:

Bridge-lever-link Pin..... 3AA

spring..... 3A1

Bridge-lever-link Pin group..... X3A

This superseded Pin X3A is obsolete and will no longer be furnished; order instead the improved Pin X3A (see Main List) which is interchangeable with it.

Note A7—Machines prior to 503 were equipped with the following parts:

Carrying Frame guide rod oil cap (2).....	4A4	†
“ “ “ “ screw (2) ..... 251..	4A5	†
“ “ cross beam.....	4A6A	*
“ “ “ “ stud.	4A8	★.34

*4A6A is assembled with 4A8. Price.. 2.32

†a4A4 and a4A5 (see Main List) are interchangeable with the corresponding superseded parts 4A4 and 4A5 if ordered together.

To apply the improved parts see Improvement No. 4.

Note A8—Machines 503 to 2202 inclusive were equipped with the following parts:

Centering Pin (long Pin; short taper).....	a5A	4.62
adjusting nut.....	5A1	.26
“ “ lock nut..... 312..	5A2	.07
spring..... 668..	a5A3	.16
“ abutment (lower).....	a5A4	.47
“ “ “ (upper).....	a5A5	.92
Centering Pin group.....	Xa5A	6.50

To apply the improved parts see Improvement No. 1.

Machines 103 to 502 inclusive were equipped with the following parts:

Centering Pin (long Pin; short taper).....	5A	4.62
adjusting nut.....	5A1	.26
“ “ lock nut..... 312..	5A2	.07
spring..... 62..	5A3	.11
“ abutment (lower).....	5A4	.25
“ “ (upper).....	5A5	.65
Centering Pin group.....	X5A	5.96

To apply the improved parts see Improvement Nos. 1 and 4.

Machines 503 to 2202 inclusive, which were equipped with Display Type Attachment but not with Low Quad Device were equipped with the following parts:

Centering Pin abutment (lower).....	a5A4	.47
“ “ “ (upper).....	a5A5	.92

These replaced an older form of a5A4 and a5A5 when Display Type Attachment was applied to machines 502 to 1103 inclusive. All machines 1104 and following not equipped with Low Quad Device have this jmproved form of Abutments.

Centering-pin Auxiliary Spring (2)..62..	36A1	.11
abutment (lower).....	a36A2A	*
“ (upper).....	a36A3	3.64
“ stud (2).....	36A4	★.13
“ “ nut (2)..... 35..	36A5	.05
“ “ washer (2)..... 419..	36A6	.04
Centering-pin Auxiliary Spring group	Xa36A	7.94

*a36A2A is assembled with 36A4. Price 3.90

To apply the improved parts see Improvement No. 1.

Note A8—continued

Machines 103 to 502 inclusive, which were equipped with Display Type Attachment but not with Low Quad Device were equipped with the following parts:

Centering-pin Abutment (lower)..... a5A14 .26

This replaced Abutment 5A4 on the above machines. See note following X36A below.

Centering-pin Auxiliary Spring (2)..62..	36A1	.11
abutment (lower).....	36A2A	*
“ (upper).....	36A3	3.30
“ stud (2).....	36A4	★.13
“ “ nut (2)..... 35..	36A5	.05
“ “ washer (2)..... 419..	36A6	.04
Centering-pin Auxiliary Spring group..	X36A	

*36A2A was assembled with 36A4.

These parts (a5A14 and X36A) are obsolete and will no longer be furnished complete. Repair parts will be furnished only if we have them in stock. If these parts are desired the machine should be equipped with the Increased Stroke of Centering Pin (Improvement No. 4) and either the Auxiliary Springs Xa36A or the Low Quad Device (Improvement No. 1).

To apply the improved parts see Improvement Nos. 1 and 4.

Machines equipped with the Eighteen-point Attachment are equipped with the following part:

Centering-pin Spring..... 6167.. a18A3 .16

and omit 18A2.

To apply the Eighteen-point Attachment see Attachment 10CU.

Note A9—Machines prior to 4109, except 4085 to 4102 inclusive, were not equipped with Group Xa33A or X35A. See Note A12.

To apply the improved parts see Improvement No. 2.

Note A10—Machines 2203 to 3842 inclusive were equipped with the following parts:

Centering-pin Lifting Link adjusting screw (inner)..... 2186..	31A3	
“ “ lock nut..... 35..	31A4	

These parts have been discontinued and may be discarded from any machine if Lock Nut a22A5 (see Main List) be furnished.

Machines prior to 2203, which were not equippeed with Low Quad Device, were not equipped with Group Xa31A.

To apply the improved parts see Improvement No. 1.

Note A11—Machines 2203 to 3842 inclusive were not equipped with Lock Nut a22A5.

When this is applied to these machines the Adjusting Screw 31A3 and its Lock Nut 31A4 should be discarded. No other change is requierd.

To apply this to machines not equipped with Low Quad Device see Improvement No. 1.

Machines prior to 2203, which were not equipped with Low Quad Device, were not equipped with Group Xa22A.

To apply the improved parts see Improvement No. 1.

Note A12—Machines 2821 to 4108 inclusive (except 4085 to 4102 inclusive, for which see Main List) were equipped with the following parts:

CENTERING-PIN STAND		
adjusting screw (front)	6A2	.07
spring plunger (left, long)	b6A9	.08
" " (rear, short)	a6A10	.08
" " lever (left)	a6A11A	*
" " " stud (fulcrum)	a6A12	.22
" " " " nut **310**	a6A13	.07
" " " (rear)	a6A14	★.65
" " " stud	a6A15	★.11
" " " spring **6108**	a6A16	.26
" " " " plate (2)	a6A17	.04
" " " " post	a6A18	.41
" " " " " nut **310**	a6A19	.07

*a6A11A is assembled with a6A14 and a6A15. Price 2.40

To apply the improved parts see Improvement No. 2.

Machines 2821 to 2930 inclusive were equipped with the following parts:

CENTERING-PIN STAND		
spring plunger lever stand	a6A20	1.50
" " " screw (3) **2198**	a6A21	.08

Some of the earlier machines were equipped with STAND 6A20 and SCREWS 6A21; these parts are obsolete and if required the improved parts a6A2 and a6A21 will be supplied. On machines 2931 and following this STAND was cast as a lug on the BRIDGE.

To apply a new Bridge see Improvement No. 2.

Machines 503 to 2900 inclusive were equipped with the following parts:

CENTERING-PIN STAND	6A	6.60
bushing	a6A5	3.96

The improved parts a6A, b6A5 and a6A22 (see Main List) give independent adjustment to the upper and lower bearing surfaces of the BUSHING; they can be applied to these machines if furnished together when ordering for the first time.

Machines 103 to 502 inclusive were equipped with the following parts:

CENTERING-PIN STAND	6A	6.60
bushing	6A5	3.96

instead of the corresponding parts a6A, b6A5 and a6A22.

To apply the improved parts see Improvement No. 4.

Machines 2554 to 4108 inclusive were equipped with the following part:

CENTERING-PIN STAND adjusting screw (right) 6A1 .07

To apply the improved parts see Improvement No. 2.

Machines 2554 to 2820 inclusive were equipped with the following parts:

CENTERING-PIN STAND		
adjusting screw (front and rear) (2)	6A2	.07
" " (left)	a6A9	.07

To apply the improved parts see Improvement No. 2.

Machines prior to 2554 were equipped with the following parts:

CENTERING-PIN STAND		
adjusting screw (right and left) (2)	6A1	.07
" " (front and rear) (2)	6A2	.07

To apply the improved parts see Improvement No. 2.

Note A13—Machines 4113 to 5539 inclusive, were equipped with the following parts:

LIFTING-TUBE OPERATING FORK	a23A1
spring hook	a23A2

These parts are obsolete and will no longer be furnished.

The improved parts b23A1 and b23A2 are interchangeable with these if furnished together.

To apply the improved parts see Improvement No. 3.

Machines 2771 to 4112 were equipped with the following part:

LIFTING-TUBE OPERATING FORK a23A1

and omit a23A2 and a23A3.

This FORK 23A1 is obsolete and will no longer be furnished.

To apply the improved part see Improvement No. 3.

Machines prior to 2203 which were not equipped with Low Quad Device, were not equipped with the group Xa23A.

To apply the improved part see Improvement No. 1.

Note A14—Machines 3025 to 4112 inclusive were equipped with the following parts:

LIFTING-TUBE-OPERATING-FORK SPRING			
(center) **6149**	a24A1		.07
(outside) (2) **6150**	a24A2		.07
block (lower abutment for a24A1)	24A3		.29
" pin	24A4		.08
rod	a24A5		.04
" eye	a24A8A		*
bar (lower)	a24A9		*
" (upper)	a24A10		†
abutment (upper)	a24A11A		†
eye (4)	a24A12		.04
LIFTING-TUBE-OPERATING-FORK SPRING group (as above)	Xa24A		1.78

*a24A8A is assembled with a24A9. Price .53

†a24A11A is assembled with a24A10. Price .47

These parts are obsolete (except 24A3 and 24A4) and will be supplied only as repair parts.

To apply the improved parts see Improvement No. 3.

Machines 2203 to 3024 inclusive were equipped with the following parts:

LIFTING-TUBE-OPERATING-FORK SPRING			
(center) **6109**	24A1		.07
(outside) (2) **6110**	24A2		.07
block (lower abutment for 24A1)	24A3		.29
" pin	24A4		.08
rod	24A5		.04
" nut **31**	24A6		.05
" " lock nut **32**	24A7		.05
" eye	24A8*		.47

*On machines 2771 to 3024 inclusive this was a24A8.

These parts are obsolete (except 24A3, 24A4 and 24A8) and will be supplied only as repair parts.

To apply the improved parts see Improvement No. 3.

Machines prior to 2203, which were not equipped with Low Quad Device, were not equipped with Groups X24A or Xa24A.

To apply the improved parts see Improvement No. 1.

Note A15—Machines 4572 to 5539 inclusive were equipped with the following parts:

LIFTING-TUBE-OPERATING-FORK STOP	a25A1A	*
spring hook	b25A2	.05

and omit a25A3.

*a25A1A is assembled with b25A2. Price 1.13

To apply the improved parts see Improvement No. 3.

Machines 4113 to 4571 inclusive, except 4353, 4542, 4546, 4549, 4551 and 4568 for which use Main List, were equipped with the following parts:

LIFTING-TUBE-OPERATING-FORK STOP	25A1A		*
spring hook	a25A2	★	.04
LIFTING-TUBE-OPERATING-FORK STOP group	X25A		1.13

*25A1A is assembled with a25A2. The improved parts Xa25A are interchangeable with these and will be furnished instead.

Machines 2203 to 4112 inclusive were not equipped with Spring Hook a25A2 nor b25A2.

To apply the improved parts see Improvement No. 3.

Machines prior to 2203, which were not equipped with Low Quad Device, were not equipped with Stop Group X25A.

To apply the improved parts see Improvement No. 3.

Note A16—Matrix Cases for Cellular Matrices, shipped prior to June, 1912, were equipped with the following parts:

MATRIX CASE comb (15)	a8A3		.26

and omitted a8A8 and a8A9.

The improved COMBS a8A8 and a8A9 (see Main List) can be applied to any MATRIX CASE for CELLULAR MATRICES by discarding two of COMBS a8A3.

Matrix Cases containing more than one row of .2″ x .4″ Matrices require the following:

MATRIX CASE comb	a8A7		2.00

These COMBS have backs half as thick as regular COMBS a8A3 so two may be placed back to back between rows of .2″ x .4″ MATRICES. The number and location of rows of .2″ x .4″ MATRICES determine the quantity required.

For holding a full font of side-hole Matrices (consisting of 225 characters and blanks) order:

MATRIX CASE	8AA		*
cover plate	8A1	★	3.30
" " screw (4) **260**	8A2	★	.03
wire (15)	8A3	★	.03
" plate	8A4	★	.40
" " screw (2) **246**	8A5	★	.04
MATRIX CASE group	X8A		9.90

*8AA is assembled with 8A1, 8A2, 8A3, 8A4 and 8A5. Order by complete symbol X8A.

Note A17—Machines 505 to 4897 inclusive were equipped with the following parts:

SLIDING FRAME	a9AA		*
draw rod clamp	a9A2		*
" " " screw (front) **258**	a9A3	★	.07

*a9AA is assembled with a9A2, a9A3 and 9A4. If this is required order instead the improved SLIDING FRAME b9AA and alter the CARRYING FRAME 4A; directions for this alteration will be furnished when required.

Machines prior to 505 were equipped with the following parts:

SLIDING FRAME	9AA		*
draw rod clamp	9A2		*
" " " screw (front) **237**	9A3	★	.07

*9AA is assembled with 9A2, 9A3 and 9A4. If this is required order instead the improved SLIDING FRAME b9AA and alter the CARRYING FRAME 4A; directions for this alteration will be furnished when required.

Note A18—The following Matrix Holders are obsolete and will no longer be furnished complete. Repair parts will be furnished in so far as we have them in stock. For the improved Standard Holders see Main List.

MATRIX HOLDER (for Electro Display Matrices)	45A1A		†
bushing	45A2	★	.34
clamp (front)	45A3A		*
" pin	45A4	★	.04
" (rear)	45A5		.79
" rod	45A6		.13
" " nut	45A7		.20
" spring **629**	45A8		.07
screw (stop for 45A7) **248**	45A9		.04

*45A3A is assembled with 45A4. Price .76

†45A1A is assembled with 45A2.

MATRIX HOLDER (adjustable, for Electro Display Matrices)	a39A1A		*
abutment (standard)	39A2	★	1.00
" screw **2208**	39A3	★	.05
bushing	39A4	★	.34
case	a39A5A		†
" handle	a39A6	★	.07
" " bar	a39A7	★	.34
" " " rivet (2) **7193**	a39A8	★	.04
clamp (short)	39A9		§
" rivet **743**	39A10	★	.03
" (long)	a39A11A		‡
" connecting bar	a39A12A		§
" " " spring **6120**	39A13	★	.07
" " " " post	39A14	★	.05
" guide pin **7156**	a39A15	★	.03
" locking bar	a39A16		§
" " " nut	a39A17	★	.13
" " " rivet **7156**	39A18	★	.03
" spring **6188**	a39A19	★	.10
" " pin	a39A20	★	.04
cover plate	a39A21	★	1.32
" " screw (5) **260**	39A22	★	.03
matrix locking lever	a39A23	★	1.66
" " " latch	a39A24	★	.14
" " " " pin **7192**	a39A25	★	.03
" " " pin **7192**	a39A26	★	.03
support wire (2)	a39A27		.03
" " shoe	a39A28		.40
" " " screw (2) **246**	a39A29		.04

*a39A1A is assembled with 39A2, 39A3, 39A4, a39A11A, a39A12A, 39A13, 39A14, a39A17, a39A19, a39A21, 39A22 and a39A23 to a39A26 inclusive. Price 10.56

†a39A5A is assembled with a39A6, a39A7 and a39A8. Price 5.28

‡a39A11A is assembled with a39A20. Price assembled 1.98

§a39A12A is assembled with 39A9, 39A10, a39A15, a39A16 and a39A18. Price 3.11

The following special ABUTMENTS are for use with the above HOLDER for casting faces on a smaller body than that for which they were designed:

MATRIX-HOLDER ABUTMENT		
(for 20-point face on 18-point body)	a39A30	1.00
(" 18 " " " 14 " ")	a39A30	1.00
(" 30 " face on 24-point body and 36-point face on 30-point body)	a39A32	1.00
("24 " face on 18-point body)	a39A33	1.00
(" 24 " " " 20 " ")	a39A34	1.00

Note A19—Machines 5293 to 5672 inclusive were equipped with the following parts:

CROSS-BEAM LIFTING LEVER		
rocker arm	42A4A	
" " stop pin **7227**	42A9	

42A4A was assembled with 42A9. This part is obsolete, order instead 42A4 (see Main List).

Machines prior to 5293 were not equipped with X42A.

To apply the improved parts see Improvement No. 5.

Note A20—Type-&-Rule Casters 4006 to 4602 inclusive were equipped with the following parts:

CENTERING PIN		
adjusting nut lock nut **312**	5A2	.07
extension washer	a5A10	.13

and omitted a5A6, a5A7, a5A8 and a5A13.

To apply the improved parts see Improvement No. 25.

Note A20—continued

Type-&-Rule Casters 3924 to 4005 inclusive were equipped with the following parts:

CENTERING PIN	b5A	
adjusting nut lock nut **312**	5A2	.07
extension washer	a5A10	.13

and omitted a5A6, a5A7, a5A8, a5A12 and a5A13.

The PIN b5A is obsolete. If the improved parts are not be to applied order PIN d5AA and withdraw the GUIDE PIN a5A12.

To apply the improved parts see Improvement No. 25.

Type-&-Rule Casters prior to 3924 were equipped with the following parts:

CENTERING PIN	a5A	
adjusting nut lock nut **312**	5A2	.07
spring abutment (lower)	a5A4	.47

and omitted a5A6, a5A7, a5A8, a5A11 and a5A13.

The PIN a5A is obsolete. If the improved parts are not to be applied order PIN d5AA and withdraw GUIDE PIN a5A12.

To apply the improved parts see Improvement No. 25.

Note A21—Type-&-Rule Casters prior to No. 3924 were not equipped with Centering-pin Guide X27A.

To apply the improved parts see Improvement No. 25.

Note A22—Machines prior to 5540 were not equipped with X52A.

To apply the improved parts see Improvement No. 3.

Note A23—Machines prior to 7210 equipped with the Low Quad Device were equipped with the following parts:

BRIDGE-BRACKET LATCH (for 16A1A) (2)	11A1	.47
fulcrum pin	11A2	.07
BRIDGE-BRACKET LATCH group	X11A	1.01

Machines equipped with the Slide X51A (or a51A1 which supersedes) do not require the Latches X11A.

To apply the improved parts see Improvement No. 1.

Note A24—Machines prior to 7210 equipped with the Low Quad Device were equipped with the following parts:

BRIDGE-BRACKET SPRING-BOX LIFTING TUBE HANDLE	14A2	.66

Machines equipped with the SLIDE X51A (or 51A1 which supersedes) should not be equipped with the HANDLE 14A2, for if the HANDLE is turned to cast high quads the effect of the spring on the SLIDE X51A is lost. To cast high quads in composition a bronze blank with a regular cone hole must be placed in the MATRIX CASE.

To apply the improved parts see Improvement No. 1.

Note A25—Machines 5540 to 7209 were equipped with the following parts:

BRIDGE-BRACKET-YOKE-LINK SLIDE	51A1A	
abutment block	51A2	
" " rivet (2) **7192**	51A3	
BRIDGE-BRACKET-YOKE-LINK SLIDE group	X51A	

These parts are obsolete; order instead the improved part a51A1.

To apply the improved parts see Improvement No. 3.

Section B

Note B1—Machines prior to 1843 were equipped with the following part:

AIR PIN (fixed, stop for 18-unit row)	2B	.07

and omitted a2B1.

To apply the improved parts see Improvement No. 13.

Note B2—Machines 3603 to 4674 inclusive (except 4633 to 4647 inclusive, for which use Main List) were equipped with the following part:*

AIR-PIN BLOCK (front)	c3B■	79.20

■Cannot be applied outside our factory.

To apply the improved part see Improvement No. 13.

*On Composing Machine 4658 and on Type-&-Rule Caster 4988 and following, clearance for NUT 36B2 was added to AIR-PIN BLOCK. This did not alter its symbol nor affect its interchangeability, as any prior BLOCK can be altered in the same manner (see Improvement No. 10.)

Machines prior to 4493, except 4420 to 4487 inclusive, were not equipped with the following parts:

AIR-PIN BLOCK plug screw (2) **2235**	a3B10	.03

To apply these SCREWS requires that the AIR-PIN BLOCK c3B be returned to our factory.

Machines 1843 to 3602 inclusive were equipped with the following part:

AIR-PIN BLOCK (front)	b3B■	79.20
AIR-PIN BLOCK (b3B and 3B1 to 3B7 inclusive)	Xb3B■	79.92

■Cannot be applied outside our factory.

To apply the improved part see Improvement No. 13.

Machines 1203 to 1842 inclusive were equipped with the following part:

AIR-PIN BLOCK (front)	a3B■	79.20
AIR-PIN BLOCK group (a3B and 3B1 to 3B7 inclusive)	Xa3B■	79.92

■Cannot be applied outside our factory.

To apply the improved part see Improvement No. 13.

Note B2—continued

Machines prior to 1203 were equipped with the following part:

AIR-PIN BLOCK (front)	3B■	79.20
AIR-PIN BLOCK group (3B to 3B7 inclusive.	X3B■	79.92

■Cannot be applied outside our factory.

To apply the improved part see Improvement No. 13.

Note B3—Machines 1603 to 3602 inclusive were equipped with the following parts:

Matrix Jaw (left)	5B	4.00
screw (for X37E) **836**	5B1	.11
" cover	a5B2	.11
MATRIX JAW group	X5B	4.22

To apply the improved parts see Improvement No. 12.

Machines prior to 1603 were equipped with the following part:

MATRIX JAW screw cover	5B2	

This is obsolete; order instead a5B2 and cut clearance in the right end of 5B for this improved COVER a5B2.

Note B4—Machines 1603 to 3602 inclusive were equipped with the following parts:

MATRIX JAW (right)	6B	3.50
screw (for X37E) **836**	6B1	.11
" cover	a6B2	.11
MATRIX JAW group	X6B	3.72

To apply the improved parts see Improvement No. 12.

Machines prior to 1603 were equipped with the following part:

MATRIX JAW screw cover	6B2	

This is obsolete; order instead a6B2 and cut clearance in the left end of 6B for this improved COVER a6B2.

Note B5—Machines prior to 1703 were equipped with the following parts:

MATRIX-JAW LATCH (in 5B, for 21D)	7B	
pin	7B1	
" cotter **91**	7B2	.00

These parts are obsolete, but 7B2 can be furnished as a repair part for the above machines. To apply the improved parts a7BB, or a7B2 (see Main List) for first time requires that these be ordered together.

Note B6—Machines 3603 to 4552 inclusive were equipped with the following parts:

MATRIX-JAW-SHOE PACKING BLOCK (left, large)	a9B	1.98
clamp screw **232**	9B1	.07
MATRIX-JAW-SHOE PACKING BLOCK group (a9B, 9B1, 9B2, a9B3 and a9B4)	Xa9B	2.46

and omitted a9B5 to a9B9 inclusive.

To apply the improved parts see Improvement No. 9.

Machines prior to 3603 were equipped with the following parts:

MATRIX-JAW-SHOE PACKING BLOCK (left, large)	9B	1.98
clamp screw **232**	9B1	.07
dowel **54**	9B2	.05
screw **219**	9B3	.10
MATRIX-JAW-SHOE PACKING BLOCK group (9B, 9B1, 9B2, and 9B3)	X9B	2.20

and omitted a9B4 to a9B9 inclusive.

To apply the improved parts see Improvement No. 9.

Machines equipped with Eighteen-point Attachment prior to machine 4553 were equipped with the following part:

MATRIX-JAW-SHOE PACKING BLOCK (left, large)	a9B10	1.98

To apply the improved part see Improvement No. 9.

Note B7—Machines 3603 to 5057 inclusive were equipped with the following parts:

MATRIX-JAW STOP RACK (front)	a12B1B	*
lug	a12B2	*
pin	a12B5	*
plug	a12B6	*
spring **6164**	a12B7	*.08
" abutment (left)	a12B3	*
" " (right)	a12B4	*

*a12B1B was assembled with a12B2 to a12B7 inclusive. This superseded STOP RACK Xc12B will no longer be furnished complete; order instead the improved STOP RACK Xd12B (see Main List).

We cannot furnish separate parts of these STOP RACKS except the SPRING; instead we exchange repaired STOP RACKS complete for broken STOP RACKS. Price for exchange 4.00

Machines 2616 to 3602 were equipped with the following part:

MATRIX-JAW STOP RACK (front)	b12B	5.00

instead of Xd12B.

To apply the improved part see Improvement No. 13.

Machines 520 to 2615 inclusive were equipped with the following part:

MATRIX-JAW STOP RACK (front)	a12B	5.00

instead of Xd12B.

To apply the improved part see Improvement No. 13.

Machines prior to 520 were equipped with the following part:

MATRIX-JAW STOP RACK (front)	12B	5.00

instead of Xd12B.

To apply the improved part see Improvement No. 13.

Note B8—Machines 3603 to 3882 inclusive were equipped with the following parts:

MATRIX-JAW-STOP-RACK LOCKING BAR (front)	c13B	2.64
bearing (for c29EE)	b13B1	.47
" lock nut **310**	a13B2	.07
MATRIX-JAW-STOP-RACK LOCKING BAR group	Xc13B	3.18

instead of Xd13B.

To apply the improved parts see Improvement No. 13.

Machines 2708 to 3602 inclusive were equipped with the following parts:

MATRIX-JAW-STOP-RACK LOCKING BAR (front)	b13B	2.64
bearing (for b29EE)	b13B1	.47
" lock nut **310**	a13B2	.07
MATRIX-JAW-STOP-RACK LOCKING BAR group	Xb13B	3.18

instead of Xd13B.

To apply the improved parts see Improvement No. 13.

Machines 520 to 2707 inclusive were equipped with the following parts:

MATRIX-JAW-STOP-RACK LOCKING BAR front	a13B	2.64
bearing (for b29EE)	a13B1	.47
" lock nut **310**	a13B2	.07
tube	a13B3	.13
MATRIX-JAW-STOP-RACK LOCKING BAR group	Xa13B	3.31

instead of Xd13B.

These parts are obsolete (except a13B2) and will no longer be furnished. To apply b13B or b13B1 for the first time to these machines requires that both of these parts be furnished and a13B3 be discarded.

To apply the improved parts see Improvement No. 13.

Machines prior to 520 were equipped with the following parts:

MATRIX-JAW-STOP-RACK LOCKING BAR (front)	13B	2.64
bearing (for 29EE)	13B1	.79
bolt	13B2	.11
tube	13B3	.20
MATRIX-JAW-STOP-RACK LOCKING BAR group	X13B	3.74

instead of Xd13B.

To apply the improved parts see Improvement No. 13.

Note B9—Machines 703 to 962 inclusive were equipped with the following parts:

NORMAL-WEDGE LOCKING PIN	a14B	
spring	a14B8	
" abutment (lower)	14B9	
tube	a14B11	.20
NORMAL-WEDGE LOCKING PIN group (a14B, 14B1, 14B2, a14B3, 14B4, 14B5, a14B6, a14B7, a14B8, 14B9, 14B10 and a14B11)	Xa14B	

To apply the improved parts order b14B and and b14B8 together and discard 14B9 and a14B11. The improved SPRING b14B8 may be applied alone for these machines if 14B9 is discarded and a14B11 shortened to 1-4″.

Machines 503 to 702 inclusive were equipped with the following parts:

NORMAL-WEDGE LOCKING PIN	14B	
bushing	14B3	
" guide screw	14B6	.07
spring	a14B8	
" abutment (lower)	14B9	
tube	a14B11	.20
NORMAL-WEDGE LOCKING PIN group (14B, 14B1, 14B2, 14B3, 14B4, 14B5, 14B6, a14B7, a14B8, 14B9, 14B10 and a14B11)	X14B	

To apply the improved parts order together b14B, a14B3, a14B6, b14B8, discard 14B9 and a14B11, and retap a15B to suit a14B6. The superseded parts 14B or 14B3 may be retained if altered to suit a14B6; if 14B is retained a14B11 must be shortened to 1-4″.

Machines prior to 503 were equipped with the following parts:

NORMAL-WEDGE LOCKING PIN	14B	
bushing	14B3	
" guide screw	14B6	.07
shank	14B7	
spring **66**	14B8	
" abutment (lower)	14B9	
tube	14B11	.20
NORMAL-WEDGE LOCKING PIN group (14B to 14B11 inclusive)	X14B	

To apply the improved parts order together b14B, a14B3, a14B6, a14B7, b14B8, discard 14B9 and 14B11, and retap 15B to suit a14B6. The superseded parts 14B or 14B3 may be retained if altered to suit a14B6; if 14B is retained a14B11 must be shortened to 1-4″. (See also Improvement No. 4.)

Machine prior to 1603:

On machines 1603 and following, the NORMAL-WEDGE-LOCKING-PIN SHANK a14B7 has been lengthened so that the regular NUTS 14B1 and 14B2 may be used when adjusting the NORMAL WEDGE to cast display type. The special long ADJUSTING NUT and its LOCK SCREW will no longer be furnished. If one of these be required for a machine prior to number 1603 it will be necessary to order instead the new SHANK a14B7 and the regular NUTS 14B1 and 14B2 (see Main List).

Note B10—Machines prior to 4658 (except 4508 to 4512 inclusive, 4533 to 4537 inclusive, 4573 to 4582 inclusive, 4589 to 4602 inclusive, and 4618 to 4647 inclusive, for which use Main List) were equipped with the following part:

NORMAL-WEDGE-LOCKING-PIN STAND screw (3-16″ x 5-8″)	232	15B5	.07

To apply the improved part see Improvement No. 7.

Machines 4658 to 9842 inclusive were equipped with the following part:

NORMAL-WEDGE-LOCKING-PIN STAND		b15B	19.80

This STAND can be altered to make c15B which is designed to be used with the Short Type Attachment (Att. 18CU).

Machines 503 to 4657 inclusive were equipped with the following part:

NORMAL-WEDGE-LOCKING-PIN STAND		a15B	19.80

This STAND can be altered to make it b15B.

To apply the improved part see Improvement No. 10.

Machines prior to 503 were equipped with the following part:

NORMAL-WEDGE-LOCKING-PIN STAND		15B	

This STAND will no longer be furnished.

To apply the improved part see Improvement No. 10.

Note B11—Machines prior to 4527 were not equipped with the following part:

PIN-JAW GUIDE ROD screw		a18B1	.03

To equip these machines with this SCREW or the first time requires that the improved GUIDE ROD 18B be furnished also.

To apply the complete improved parts see Improvement No. 9.

Note B12—Machines 4233 to 4607 inclusive (except 4249 to 4267 inclusive, 4353, 4527, 4542, 4546, 4549, 4551, 4552 and 4573 to 4602 inclusive, for which use Main List) were equipped with the following parts:

TYPE CARRIER		c20BB	*
bushing	458	a20B10	★.07
lever		c20B3	★2.75
" pin		b20B4	★.10
" " cotter	95	a20B9	★.00
" stand		b20B1	★1.98
" " rivet (2)	7104	a20B2	★.01
shield		a20B5	★.07
" screw (2)	252	20B6	★.03

and omitted a20B11 and a20B12.

*TYPE CARRIER c20BB was assembled with b20B1, a20B2, c20B3, b20B4, a20B5, 20B6, a20B9, a20B10, 21B1B, Xc26B, Xb27B and Xb31B. Repair parts will be furnished for this superseded TYPE CARRIER but it will no longer be furnished complete.

To apply the improved parts see Improvement No. 8.

Machines 2526 to 4607 inclusive (except 4353, 4527, 4542, 4546, 4549, 4551, 4552 and 4573 to 4602 inclusive, for which use Main List) were equipped with the following part:

TYPE CARRIER LEVER (for a31B)		c20B3	2.75

To apply the improved part see Improvement No. 8.

Machines 2526 to 4267 inclusive (except 4233 to 4248 inclusive, for which see above) were equipped with the following part:

TYPE CARRIER		b20BB	*

and omitted a20B10.

*This TYPE CARRIER was the same as CARRIER c20BB above except for the omission of the BUSHING. Repair parts will be furnished for this superseded CARRIER but it will no longer be furnished complete.

To apply the improved parts see Improvement No. 8.

Machines 1203 to 2525 inclusive were equipped with the following parts:

TYPE CARRIER		b20BB	*
lever (for a31B)		b20B3	†
" pin		a20B4	★.03
" stand		a20B1	†
" " rivet (2)	7104	a20B2	★.01
shield		a20B5	★.07
" screw (2)	252	20B6	★.03

and omitted a20B9, a20B10, a20B11 and a20B12.

*b20BB was assembled with a20B1, a20B2, b20B3, a20B4, a20B5, 20B6, 21B1B, Xa26B, Xa27B and Xb31B.

†These parts will no longer be furnished, order instead LEVER c20B3 and STAND b20B1 and with either order also PIN b20B4 and COTTER a20B9 (see Main List) and see Improvement No. 8 for further instructions. Repair parts will be furnished for this superseded CARRIER b20BB but it will no longer be furnished complete.

To apply the improved parts see Improvement No. 8.

Note B12—continued

Machines prior to 1203 were equipped with the following parts:

TYPE CARRIER		a20BB	*
abutment (for 31B)		20B1	★.13
" rivet	721	20B2	★.01
lever (for 31B)		20B3	★.66
" pin		20B4	★.03
shield		20B5	★.07
" screw (2)	252	20B6	★.03
abutment (for 26B2)		a20B7	★.13

and omitted a20B9, a20B10, a20B11 and a20B12.

*a20BB was assembled with 20B1 to 20B6 inclusive, a20B7, 21B1B, X26B, X27B and Xa31B.

Repair parts will be furnished for this superseded CARRIER a20BB, if we have them in stock, but it will no longer be furnished complete.

To apply the improved parts see Improvement No. 8.

Note B13—Machines prior to 4368 were equipped with the following parts:

TYPE-CARRIER EXTENSION		22B	.20
sleeve		22B2	.34
" nut		22B3	.07

To apply the improved EXTENSION a22B and SLEEVE a22B2 to these machines requires that both be furnished and NUT 22B3 be discarded.

Note 14—Machines 1203 to 4607 inclusive (except 4353, 4527, 4542, 4546, 4549, 4551, 4552 and 4573 to 4602 inclusive, for which use Main List) were equipped with the following parts:

TYPE-CARRIER SHOE (long)		a23B	1.98
TYPE-CARRIER SHOE group (a23B, 23B1 and 23B2)		Xa23B	2.22

and omitted a23B3 to a23B7 inclusive.

TYPE-CARRIER SHOE a23B is obsolete and will no longer be furnished; order instead the improved part b23BB together with the LEVER d20B3 and file the stand for the LEVER sufficiently to clear the LEVER at each end of its stroke.

To apply the improved parts see Improvement No. 8.

Machines prior to 1203 were equipped with the following parts:

TYPE-CARRIER SHOE (long)		23B	.66
TYPE-CARRIER SHOE group (23B, 23B1 and 23B2)		X23B	.90

and omitted a23B3 to a23B7 inclusive.

To apply the improved parts see Improvement No. 8.

Note B15—Machines 1203 to 4607 inclusive (except 4353, 4527, 4542, 4546, 4549, 4551, 4552 and 4573 to 4602 inclusive, for which use Main List), were equipped with the following parts:

TYPE-CARRIER SHOE (short)		a24B	.34
TYPE-CARRIER SHOE group (a24B and 24B1)		Xa24B	.50

and omitted a24B2.

To apply the improved parts see Improvement No. 8.

Machines prior to 1203 were equipped with the following parts:

TYPE-CARRIER SHOE (short)		24B	.34
TYPE-CARRIER SHOE group (24B and 24B1)		X24B	.50

and omitted a24B2.

To apply the improved parts see Improvement No. 8.

Note B16—Machines prior to 520 were equipped with the following part:

TYPE-CARRIER-SPRING-ABUTMENT STAND		25B	1.98
TYPE-CARRIER-SPRING-ABUTMENT STAND group (25B, 25B1 and 25B2)		X25B	2.22

To apply the improved STAND a25B a new CAM-LEVER-SHAFT STAND a9E must also be ordered, since the STUD 59E carried by STAND 25B on machines prior to 520 is carried by STAND a9E on machines 520 and following.

Note B17—Machines 4016 to 4607 inclusive (except 4353, 4527, 4542, 4546, 4549, 4551, 4552 and 4573 to 4602 inclusive, for which use Main List) were equipped with the following parts:

TYPE CLAMP		c26B	4.00
TYPE CLAMP group (c26B and a26B2)		Xc26B	4.07

and omitted b26B1.

To apply the improved parts see Improvement No. 8.

Machines 2525 to 4015 inclusive were equipped with the following parts:

TYPE CLAMP		b26B	4.00
extension	7157	a26B1	.01
TYPE CLAMP group (b26B, a26B1 and a26B2)		Xb26B	4.08

To apply the improved parts see Improvement No. 8.

Machines 1203 to 2524 inclusive were equipped with the following part:

TYPE CLAMP		a26B	4.00
TYPE CLAMP group (a26B, a26B1 and a26B2)		Xa26B	4.08

To apply the improved part see Improvement No. 8.

Machines prior to 1203 were equipped with the following parts:

TYPE CLAMP		26B	4.00
extension		26B1	.01
spring	67	26B2	.07
TYPE CLAMP group		X26B	4.08

To apply the improved parts see Improvement No. 8.

Note B18—Machines 4016 to 4607 inclusive (except 4353, 4527, 4542, 4546, 4549, 4551, 4552 and 4573 to 4602 inclusive, for which use Main List), were equipped with the following parts:

TYPE-CLAMP SHOE		b27B	.40
screw (4)	260	a27B1	.03
rod		a27B2	.07
TYPE-CLAMP SHOE group		Xb27B	.59

To apply the improved parts see Improvement No. 8.

Machines 1203 to 4015 inclusive were equipped with the following parts:

TYPE-CLAMP SHOE		a27B	.34
screw (4)	260	a27B1	.03
TYPE-CLAMP SHOE group		Xa27B	.46

and omitted a27B2.

To apply the improved parts see Improvement No. 8.

Machines prior to 1203 were equipped with the following parts:

TYPE-CLAMP SHOE		27B	.20
screw (5)	252	27B1	.03
TYPE-CLAMP SHOE group		X27B	.35

and omitted a27B2.

To apply the improved parts see Improvement No. 8.

Note B19—Machines prior to 1203 were equipped with the following parts:

TYPE PUSHER		29BB	*
blade		29B1	*
eye		29B5	*
TYPE PUSHER group (29BB, 29B6 and 29B7)		X29B	8.11

*29BB is assembled with 29B1 to 29B5 inclusive. Price assembled 8.00

To apply the improved parts see Improvements Nos. 8 and 13.

Machines 1203 to 3882 inclusive.

Machines 1203 to 2615 inclusive were equipped with TYPE PUSHER a29BB, machines 2616 to 3882 inclusive were equipped with TYPE-PUSHER BLADE a29B1 and machines prior to 3883 were equipped with TYPE-PUSHER EYE 29B5. Since these parts cannot be furnished separately and the new TYPE PUSHER Xb29B complete (which is in effect on machines 3883 and following) can be used on machines 1203 and following, or on any machine except those equipped with the TYPE CARRIER X20B, these superseded TYPE PUSHERS will not be furnished. Order instead, TYPE PUSHER Xb29B (see Main List).

To apply the improved parts see Improvement No. 13.

Note B20—Machines prior to 1203 were equipped with the following parts:

TYPE-CLAMP TRIP		28B	.79
screw	236	28B1	.07
TYPE-CLAMP TRIP group		X28B	.86

and omitted a28B2 and a28B3.

To apply the improved parts see Improvement No. 8.

Note B21—Machines prior to 1203 were equipped with the following parts:

TYPE-PUSHER GUIDING LEVER		30B	1.00
fulcrum screw		30B1	.07
spring	610	30B2	.07
" post		30B3	.05
TYPE-PUSHER GUIDING LEVER group		X30B	1.19

Machines 1203 and following omit the above parts.

To apply the improved parts see Improvement No. 8.

Note B22—Machines 2883 to 4607 inclusive (except 4353, 4527, 4542, 4546, 4549, 4551, 4552 and 4573 to 4602 inclusive, for which use Main List) were equipped with the following parts:

TYPE SUPPORT SPRING		a31B	★.35
bar		d31B1B	*
" rivet (2)	7121	31B2	★.01
" spring	6110	a31B6	.07
" yoke		b31B4	1.00

and omitted a31B7.

*d31B1B is assembled with a31B and 31B2. Price 1.20

To apply the improved parts see Improvement No. 8.

Machines 1790 to 2882 inclusive were equipped with the following parts:

TYPE SUPPORT SPRING		a31B	★.35
bar		c31B1B	*
" rivet (2)	7121	31B2	★.01
" spring	6110	a31B6	.07
" yoke		a31B4	1.00

and omitted a31B7.

*c31B1B was assembled with a31B and 31B2. This part is obsolete; order instead the improved part d31B1B. When d31B1B is ordered for the first time for these machines order also the YOKE b31B4 or chamfer YOKE a31B4 to suit the fillet in d31B1B.

To apply the improved parts see Improvement No. 8.

Note B22—continued

Machines 1203 to 1789 inclusive were equipped with the following parts:

Type Support Spring		a31B	★.35
bar		b31B1B	*
" rivet (2)	7121	31B2	★.01
" spring	6110	a31B6	.07
" stud		b31B3	.04
" yoke		a31B4	1.00

and omitted a31B7.

*b31B1B is assembled with a31B and 31B2. This assembled part is obsolete; order instead the improved part d31B1B. When d31B1B is ordered for the first time for these machines order also the Yoke b31B4 or enlarge the hole in the Yoke a31B4 and chamfer its corners to suit the Bar d31B1B.

To apply the improved part see Improvement No. 8.

Machines prior to 1203 were equipped with the following parts:

Type Support Spring		31B	★.35
bar		a31B1B	*
" rivet (2)	7121	31B2	★.01
" stud		a31B3	★.04
" spring	68	31B6	.07

and omitted a31B4 and a31B7.

*a31B1B is assembled with 31B, 31B2 and a31B3. Price assembled 1.20

When Type-support-spring Bar a31B1B is ordered for machines prior to 523 the Type Carrier must be drilled and tapped for special Type-carrier Stop Screw a20B8 and this Screw ordered.

Type Carrier Stop Screw (special) a20B8 .07

To apply the improved parts see Improvement No. 8.

Note B23—Machines prior to 4658 were not equipped with Pin-jaw-guide-rod Stand X36B.

To apply the improved parts see Improvement No. 10.

Note B24—Machines prior to 4658 were equipped with the following parts:

Air-pin Plate		4B	3.96
Air-pin Plate group (4B, 4B1 and 4B2		X4B	4.38

To apply the improved part see Improvement No. 10.

Note B25—Machines equipped with Eighteen-point Attachment prior to machine 4957 were equipped with the following parts:

Locking Bar Bracket		37B2	

The position of the Dowel hole in the Bracket 37B2 is different from that in Bracket a37B2. If a new Bracket is to be applied order a37B2 and drill and ream for the Dowel after the Bracket is positioned.

Note B26—Machines equipped with Eighteen-point Attachment prior to machine 4415 were equipped with the following parts:

Matrix-jaw-stop-rack Locking Bar		c13B	2.64
bearing		b13B1	.47
" lock nut	310	a13B2	.07
Matrix-jaw-stop-rack Locking Bar group		Xc13B	3.18

To apply the improved parts see Improvement No. 14.

Note B27—The earlier Lead and Rule Mold Operating Attachment were equipped with the following parts:

Mold-blade Stop		50B1	
adjusting screw	119	50B2	.10
" " lock nut	310	50B3	.07
" " block		50B4	
" " " screw (long)	222	50B5	.08
" " " " (short)	223	50B6	.08
" " " " washer (2)	413	50B7	.07
Mold-blade Stop group		X50B	

and omitted X51B.

The Stop group X50B is obsolete and will no longer be furnished complete. The improved parts consisting of the Micrometer Wedge group X51B (see Main List) can be substituted for X50B without any other change.

Note B28—The earlier Lead and Rule Mold Operating Attachments having Spring Box in line with the Mold-blade Operating Rod were equipped with the following parts:

Mold-blade Operating Rod		a53B2B	*
pin		a53B3	★.07

and omitted 53B1.

*a53B2B was assembled with a53B3. Price assembled is 6.60

To apply the improved parts see Improvement No. 24.

Note B29—Type-&-Rule Casters 4988 to 7142 inclusive (except 6953, 6963 to 6982 inclusive) were equipped with the following parts:

Air-pin-block Cover Plate		a33B1	3.96
screw (4)	223	33B2	.08
Air-pin-block Cover Plate group		Xa33B	4.28

Type-&-Rule Casters prior to No. 4988 were equipped with the following parts:

Air-pin-block Cover Plate		33B1	3.96
screw (2)	223	33B2	.08

To apply the improved parts see Improvement No. 10.

Note B30—Type-&-Rule Casters prior to 4603 were not equipped with Positioner X34B.

To apply the improved parts see Improvement No. 26.

Note B31—Type-&-Rule Casters 4603 to 4884 were equipped with the following parts:

Matrix-holder-positioner Guide Rod		35B1	1.32
screw		35B2	.03
Matrix-holder-positioner Guide Rod group		X35B	1.35

This Rod is used with earlier Electro Display Matrix Holders but cannot be used with the improved Holder X41A. The improved Rod a35B1 for use with Holder X41A can be substituted for Rod 35B1 without any other change.

Machines prior to 4603 were not equipped with Guide Rod X35B or Xa35B.

To apply the improved parts see Improvement No. 26.

Note 32B—Type-&-Rule Casters prior to 4603 were not equipped with Packing Block b9B nor its parts 9B2, a9B3, and a9B5 to a9B9 inclusive.

To apply these improved parts see Improvement No. 26.

Note B33—Type-&-Rule Casters prior to 7143 (except 6953, 6963 to 6982 inclusive) were equipped with parts of the 3B group the same as Composing Machines, which see.

Note B34—Type-&-Rule Casters 4988 to 7142 inclusive (except 6953, 6963 to 6982 inclusive) were equipped with the following parts:

Pin-jaw-guide-rod Stand		36B1	1.19
nut	310	36B2	.07
Pin-jaw-guide-rod Stand group		X36B	1.26

To apply these parts to prior Type-&-Rule Casters see Improvement No. 10.

Section C

Note C1—Machines prior to to 1843 were equipped with the following part:

Air Pin (fixed, stop for front row)		2C	.07

and omitted a2C1.

To apply the improved part see Improvement No. 13.

Note C2—Machines 1843 to 3882 inclusive were equipped with the following part:

Air-pin Block (rear)		a3C■	66.00
Air-pin Block group (a3C, 3C1 to 3C6 inclusive, and b3C7)		Xa3C■	66.87

■Cannot be applied outside our factory.

To apply the improved part see Improvement No. 13.

Machines 2685, 2751 and 2755 to 3612 inclusive, were equipped with the following part:

Air-pin block stud		a3C8	

This part, now obsolete, carried the Bell Crank 25C1 (see Note C16).

Machines prior to 1843 were equipped with the following part:

Air-pin Block (rear)		3C■	66.00

■Cannot be applied outside our factory.

To apply the improved part see Improvement No. 13.

Machines 1003 to 2202 inclusive, not equipped with the Low Quad Device are equipped with the following part:

Air-pin Block Stud (stop for 16C7)		a3C7	.07

instead of Spring Post b3C7.

To apply the improved part see Improvement No. 1.

Machines prior to 1003 omitted piece 3C7.

To apply the improved part see Improvement No. 1.

Note C3—Machines prior to 703 were equipped with the following part:

Air-pin Plate		4C	

This superseded Plate will no longer be furnished.

When ordering the improved Plate a4C for the first time for one of these machines order also Matrix-jaw Stop Xa10C.

Note C4—Machines 4508 to 4512 inclusive, 4533 to 4537 inclusive, 4573 to 4582 inclusive, 4589 to 4602 inclusive, 4618 to 4647 inclusive, 4658 to 5292 inclusive, were equipped with the following parts

Cross Slide		b5CC	*
draw rod		b5C1	1.50

and omitted a5C9, a5C10 and a5C11.

*b5CC is assembled with a5C2, a5C3, 5C4 and a5C7. This superseded Cross Slide b5CC will no longer be furnished; order instead the improved Cross Slide c5CC (see Main List) which is interchangeable with it.

To apply the improved parts see Improvement No. 7.

Note C4—continued

Machines prior to 4658 (except 4508 to 4512 inclusive, 4533 to 4537 inclusive, 4573 to 4582 inclusive, 4589 to 4602 inclusive, and 4618 to 4647 inclusive, for which see above) were equipped with the following parts:

Cross Slide		a5CC†	
extension		5C3	*
" rivet (2)	728	5C4	★.07
plate (bearing for Matrix Case)		5C5	★.86
" screw (3)	244	5C6	★.05

and omitted a5C7, a5C9, a5C10 and a5C11.

*a5CC is assembled with a5C2, 5C3 to 5C6 inclusive.

†Machines prior to 544 has Slide 5CC but a5CC is interchangeable with it. Cross Slide 5CC or a5CC will no longer be furnished.

To apply the improved parts see Improvement No. 7.

Machines 3883 to 4657 inclusive (except 4508 to 4512 inclusive, 4533 to 4537 inclusive, 4573 to 4582 inclusive, 4589 to 4602 inclusive, and 4618 to 4647 inclusive, for which use Main List) were equipped with the following part:

Cross Slide draw rod		a5C1	1.50

To apply the improved part see Improvement No. 7.

Machines prior to 3883 were equipped with the following part:

Cross Slide draw rod		5C1	

This Draw Rod 5C1 will no longer be furnished; order instead Draw Rod a5C1 (see above) which is interchangeable with it.

To apply the latest improved parts see Improvement No. 7.

Machines prior to 544 were equipped with the following parts:

Cross Slide		5CC	
draw rod clamp screw	233	5C2	.07

This Clamp Screw will be furnished as a repair part but the Cross Slide 5CC will no longer be furnished. The Cross Slide a5CC (see above) is interchangeable with this superseded 5CC for these machines.

To apply the improved parts see Improvement No. 7.

Note C5—Machines not equippcd with the Low Quad Molds are equipped with the following parts:

Cross-slide Guide		7C	6.60
Cross-slide Guide group (7C, 7C1, and 7C2)		X7C	7.41

This Guide can be altered to form the new Guide a7C.

To apply the improved part see Improvement No. 1.

Note C6—Machines prior to 3603 were equipped with the following parts:

Matrix Jaw (front)		8C	2.50
screw (for Xa38E)	836	8C1	.11
" cover		8C2	.11
Matrix Jaw group		X8C	2.72

To apply the improved parts see Improvement No. 12.

Note C7—Machines prior to 3603 were equipped with the following parts:

Matrix Jaw (rear)		9C	2.50
screw (for Xa38E)	836	9C1	.11
" cover		9C2	.11
Matrix Jaw group		X9C	2.72

To apply the improved parts see Improvement No. 12.

Note C8—Machines 703 to 3882 inclusive were equipped with the following part:

Matrix-jaw Stop (front)		a10C	.40
Matrix-jaw Stop group (a10C and a10C1)		Xa10C	.46

When ordering for previous machines, for the first time, the Stop a10C or Rivets a10C1, both of these parts must be ordered. On machines prior to 503 file a seat on the Air-pin Plate 4C to receive the Stop a10C and drill holes in the Plate 4C to receive the Rivets a10C1.

To apply the improved part see Improvement No. 13.

Note C9—Machines 3603 to 3882 inclusive were equipped with the following part:

Matrix-jaw Stop (rear)		a11C	.60
Matrix-jaw Stop group (a11C and 11C1)		Xa11C	.80

To apply the improved part see Improvement No. 13.

Machines prior to 3603 were equipped with the following part:

Matrix-jaw Stop (rear)		11C	

This is obsolete; order instead a11C (see above) which is interchangeable with it.

To apply the latest improved part see Improvement No. 13.

Note C10—Machines 3883 to 5007 inclusive were equipped with the following parts:

Matrix-jaw Stop Rack (rear)	b12C1C		*
lug	a12C2		*
pin	a12C5		*
plug	a12C6		*
spring	a12C7	6164	★.08
" abutment (rear)	a12C3		*
" " (front)	a12C4		*

*b12C1C was assembled with a12C2 to a12C7 inclusive.

This superseded Stop Rack Xc12C will no longer be furnished complete; order instead the improved Stop Rack Xd12C (see Main List).

We cannot furnish separate parts of these Stop Racks except the Spring; instead we exchange repaired Stop Racks complete for broken Stop Racks. Price for exchange 4.00

Machines 3603 to 3882 inclusive were equipped with the following parts:

Matrix-jaw Stop Rack (rear)	a12C1C		*
lug	a12C2		*
pin	a12C5		*
plug	a12C6		*
spring	a12C7	6164	★.08
" abutment (rear)	a12C3		*
" " (front)	a12C4		*
Matrix-jaw Stop Rack group	Xb12C		

*a12C1C is assembled with a12C2 to a12C7 inclusive.

This superseded Stop Rack will no longer be furnished complete; order instead the improved Stop Rack Xd12C and cut clearance in the C Pin Block for the additional tooth on the front of this improved Stop Rack.

We cannot furnish separate parts of these Stop Racks except the Spring; instead we exchange repair Stop Racks complete for broken Stop Racks. Price for exchange 4.00

To apply the improved parts see Improvement No. 13.

Machines 520 to 3602 inclusive were equipped with the following part:

Matrix-jaw Stop Rack (rear)	a12C		5.00

and omitted Xd12C.

To apply the improved part see Improvement No. 13.

Machines prior to 520 were equipped with the following part:

Matrix-jaw Stop Rack (rear)	12C		5.00

and omitted Xd12C.

To apply the improved part see Improvement No. 13.

Note C11—Machines 3603 to 3882 inclusive were equipped with the following parts:

Matrix-jaw-stop-rack Locking Bar (rear)	b13C		2.11
bearing (for c28E)	a13C1		.66
" lock nut	a13C2	318	.08
key	a13C3		.07
Matrix-jaw-stop-rack Locking Bar group	Xb13C		2.92

and omitted a13C4 to a13C11 inclusive.

To apply the improved parts see Improvement No. 13.

Machines 520 to 3602 inclusive were equipped with the following parts:

Matrix-jaw-stop-rack Locking Bar (rear)	a13C*		2.11
bearing (for b28E)	a13C1		.66
" lock nut	a13C2	318	.08
Matrix-jaw-stop-rack Locking Bar group	Xa13C		2.85

and omitted a13C3 to a13C11 inclusive.

*Machines 520 to 742 inclusive had a special Locking Bar which is obsolete and will no longer be furnished. When ordering for these machines a Locking Bar a13C for the first time a new Stop Rack a12C must also be ordered at the same time.

To apply the improved parts see Improvement No. 13.

Machines prior to 520 were equipped with the following parts:

Matrix-jaw-stop-rack Locking Bar (rear)	13C		2.11
bearing (for 28E)	13C1		.53
bolt	13C2		.47
tube	13C3		.20
Matrix-jaw-stop-rack Locking Bar group	X13C		3.31

To apply the improved parts see Improvement No. 13.

Note C12—Composing Machines 2709 to 3965 inclusive and Type-&-Rule Casters 2709 to 4048 inclusive were equipped with the following parts:

Mold-blade Abutment Slide	a14CC		*
adjusting screw	a14C1		★.40
" " lock screw	a14C2		★.13
abutment screw	a14C9		★.66

and omitted a14C10 to a14C13 inclusive.

*a14CC was assembled with a14C1, a14C2, a14C3, 14C5 to 14C8 inclusive, and a14C9. (Type-&-Rule Casters omitted 14C5 and 14C6.)

To apply the improved parts see Improvement No. 6.

Note C12—continued

Machines 2356 to 2708 inclusive were equipped with the following parts:

Mold-blade Abutment Slide	a14CC		*
adjusting screw	14C1		★.40
" " lock screw	14C2		★.13

and omitted a14C9 to a14C13 inclusive.

*a14CC was assembled with 14C1, 14C2, a14C3, 14C5 to 14C8 inclusive. (Type-&-Rule Casters omitted 14C5 and 14C6.)

To apply the improved parts a14C1, a14C2 or a14C9 requires that all three parts be furnished together when ordered for the first time.

To apply the improved parts see Improvement No. 6.

Machines prior to 2356 were equipped with the following parts:

Mold-blade Abutment Slide	a14CC		*
adjusting screw	14C1		★.40
" " lock screw	14C2		★.13
anvil	14C3		★1.66
" dowel (2)	14C4	58	★.04

and omitted a14C9 to a14C13 inclusive.

*a14CC was assembled with 14C1 to 14C8 inclusive.

On machines 2203 and following a slight modification was made in the Slide itself but it could be used on any preceding machine.

To apply the improved Anvil a14C3 requires that the entire new Slide be ordered.

To apply the improved parts see Improvement No. 6.

Note C13—Machines prior to 4658 (except 4508 to 4512 inclusive, 4533 to 4537 inclusive, 4573 to 4582 inclusive, 4589 to 4602 inclusive, and 4618 to 4647 inclusive, for which use Main List) were equipped with the following part:

Mold-blade Operating Rod fork pin	16C6		.66

To apply the improved part see Improvement No. 7.

Composing Machines 3613 to 4657 inclusive (except 4508 to 4512 inclusive, 4533 to 5437 inclusive, 4573 to 4582 inclusive, 4589 to 4602 inclusive, and 4618 to 4647 inclusive, for which use Main List) were equipped with the following part:

Mold-blade Operating Rod fork pin spring	16C7		.13

To apply the improved part see Improvement No. 7.

Machines 3966 to 4362 inclusive were equipped with the following parts:

Mold-blade Operating Rod ejecting spring (2)	16C2	611	.22
ejecting spring sleeve	a16C4		.34
Mold-blade Operating Rod group (a16C, a16C1, 16C2, 16C3, a16C4, b16C5, 16C6 to 16C10 inclusive, a16C11, a16C12, 16C13, 16C14, a16C15 and a16C16)			

and omitted a16C17

To apply the improved parts see Improvement No. 6.

Machines prior to 3966 were equipped with the following parts:

Mold-blade Operating Rod	16C		1.32
ejecting spring (2)	16C2	611	.22
" " sleeve	16C4		.34
Mold-blade Operating Rod group (16C, a16C1, 16C2, 16C3, 16C4, a16C5, 16C6 to 16C10 inclusive, a16C11, a16C12, 16C13 and 16C14)			

and omitted a16C15, a16C16 and a16C17.

To apply the improved parts see Improvement No. 6.

Machines 2902 to 3965 inclusive, also machines prior to 2902 having Low Quad Device, were equipped with the following part:

Mold-blade Operating Rod fork	a16C5		3.50

To apply the improved part see Improvement No. 6.

Machines prior to 2902 not equipped with Low Quad Device were equipped with the following part:

Mold-blade Operating Rod fork	16C5		

This Fork will no longer be furnished; order instead a16C5 (see above) which is interchangeable with 16C5.

To apply the improved part see Improvement No. 6.

Composing Machines 2685, 2751 and 2755 to 3612 inclusive were equipped with the following parts:

Mold-blade Operating Rod fork pin spring	a16C7		
fork pin spring screw (2)	a16C8	2212	

These parts are obsolete and will no longer be furnished. Instead parts 16C7 and 16C8 will be furnished.

To apply the improved parts see Improvement No. 7.

Machines prior to 1263 were equipped with the following part:

Mold-blade Operating Rod sizing spring sleeve (outside)	16C12		

This Sleeve 16C12 will no longer be furnished. Instead Sleeve a16C12, which is interchangeable with 16C12, will be furnished.

Machines prior to 941 were equipped with the following parts:

Mold-blade Operating Rod distance sleeve	16C1		
sizing spring sleeve (inside)	16C11		

a16C1 and a16C11 (see Main List) are interchangeable with 16C1 and 16C11 if ordered together for these machines.

Note C14—Machines prior to 3883 were equipped with the following part:

Pin Jaw (front)	18CC		*
Pin Jaw group (18CC, 18C2 and 18C3)	X18C		2.62

*18CC is assembled with 18C1. Price assembled 2.50

To apply the improved part see Improvement No. 13.

Note C15—Machines prior to 3883 were equipped with the following part:

Pin-jaw-guide-rod Stop	21C		.03

To apply the improved part see Improvement No. 13.

Note C16—Machines 2685, 2751 and 2755 to 3612 inclusive were equipped with the following parts:

Wedge Cover	a24C10C		*
rivet	a24C9	7177	
bracket	a24C2		
" lever	a24C3		
" screw (long) (2)	a24C4	2160	
" " (short)	a24C5	250	
" stud (for a24C3)	a24C6		
" " cotter	a24C7	97	

*a24C10C was assembled with a24C2, a24C6, a24C7 and a24C9.

Air-pin-block Bell Crank (for a87E2)	25C1		

These parts are obsolete for the standard composing machine and will no longer be furnished for it. The improved parts X24C (see Main List) may be substituted for all of the above on these machines.

Note C17—Machines prior to 4658 were equipped with the following part:

Pin-jaw Guide Rod	20C		

and omitted a20C1.

This superseded Guide Rod 20C will no longer be furnished; order instead the improved Guide Rod a20C and its Screw a20C1, which must be furnished together when ordered for the first time for a machine not already equipped with them.

Note C18—Machines equipped with Eighteen-point Attachment prior to machine 4415 were equipped with the following parts:

Matrix-jaw Stop Rack	b12C8C		*
lug	a12C2		*
pin	a12C5		*
plug	a12C6		*
spring	a12C7	6164	★.08
" abutment (rear)	a12C3		*
" " (front)	a12C4		*
Matrix-jaw Stop Rack group	Xb12C8		15.84

*b12C8C is assembled with a12C2 to a12C7 inclusive.

Order by complete symbol Xb12C.

Note: We cannot furnish separate parts of this Stop Rack except the Spring a12C7; instead we exchange repaired Stop Racks for broken Stop Racks. Price for exchange (when the main piece b12C8 is not broken) is 4.00

If the main piece b12C8 is broken the price for exchange will be determined after examination of the parts.

To apply the improved parts see Improvement No. 14.

Note C19—Machines equipped with Eighteen-point Attachment prior to machine 4415 were equipped with the following parts:

Matrix-jaw-stop-rack Locking Bar (rear)	a13C12		*
bearing	a13C13		*
spring	a13C14		*
yoke	a13C15		*
Matrix-jaw-stop-rack Locking Bar group	X13C12		*

and omitted Xc13C.

If these obsolete parts are required consult our Main Office in Philadelphia.

To apply the improved parts see Improvement No. 14.

Note C20—Machines equipped with Eighteen-point Attachment prior to machine 4415 were equipped with the following part:

Locking Bar bracket	33C2		15.84

To apply the improved part see Improvement No. 14.

Note C21—Type-&-Rule Casters prior to 4049 (except 3966, for which use Main List) were not equipped with Air-pin-block Spring Post b3C7.

To apply the improved parts see Improvement No. 27.

Note C22—Type-&-Rule Casters 4618 to 5292 inclusive were equipped with the following parts:

Cross Slide	b5CC		*

and omitted a5C9, a5C10 and a5C11.

*b5CC is assembled with a5C2, a5C3, 5C4 and a5C7. This superseded Cross Slide b5CC will no longer be furnished; order instead the improved Cross Slide c5CC which is interchangeable with it.

To apply the improved parts see Improvement No. 7.

Note C22—continued

Machines prior to 4618 were equipped with the following parts:

Cross Slide		a5CC	*
extension		5C3	*
" rivet (2)	728	5C4	★.07
plate (bearing for Matrix Case)		5C5	★.86
" screw (3)	244	5C6	★.05

and omitted a5C7, a5C9, a5C10 and a5C11.
*a5CC was assembled with a5C2, 5C3, 5C4, 5C5 and 5C6.
This Slide is obsolete and will no longer be furnished.
To apply the improved parts see Improvement No. 7.

Note C23—Type-&-Rule Casters 3966 and 4049 to 4618 inclusive were equipped with the following parts:

Mold-blade Operating Rod			
fork pin		16C6	.66
" " spring		a16C7	.13

To apply the improved parts see Improvement No. 7.

Type-&-Rule Casters prior to 3966, also 3977 to 4048 inclusive, were equipped with the following parts:

Mold-blade Operating Rod			
fork pin spring		16C7	.13
" " " screw (2)	247	16C8	.04

To apply the improved parts see Improvement No. 27.

Note C24—Type-&-Rule Casters prior to 4049 (except 3966) were not equipped with Mold-blade Shifter group X26C.
To apply the improved parts see Improvement No. 27.

Note C25—Type-&-Rule Casters prior to 4049 (except 3966) were not equipped with Mold-blade-shifter-extension Guide group X27C.
To apply the improved parts see Improvement No. 27.

Note C26—Type-&-Rule Casters prior to 4049 (except 3966) were not equipped with Mold-blade-shifter Bell Crank 28C1.
To apply the improved parts see Improvement No. 27.

Note C27—Type-&-Rule Casters prior to 4049 (except 3966) were equipped with the following parts:

Wedge Cover		24C	.40
screw	250	24C1	.04

and omitted X24C10.
To apply the improved parts see Improvement No. 27.

Note C28—Type-&-Rule Casters prior to 7143 (except 6953, 6963 to 6982 inclusive) were equipped with parts of the 3C group the same as Composing Machines, which see.

Note C29—Type-&-Rule Casters prior to 7143 (except 6953, 6963 to 6982 inclusive) were equipped with the following parts:

Air-pin block-Cover Plate		29C1	3.96
screw (2)	223	29C2	.08
Air-pin-block Cover Plate group		X29C	4.12

Section D

Note D1—Machines 3883 to 4172 inclusive were equipped with the following parts:

Air-pin Block			
cover plate		3D1	1.32
retaining plate (for a28E3)		a3D14	

a3D14 is obsolete and will no longer be furnished. Order instead a3D1 (see Main List), which is the equivalent of 3D1 and a3D14 combined, and discard 3D and a3D14.

Machines prior to 3883 were equipped with the following part:

Air-pin Block cover plate		3D1	1.32

and omitted a3D14.
3D1 is obsolete; order instead a3D1 (see Main List) which is interchangeable with it.
To apply the improved part see Improvement No. 13.

Machines 3883 to 4062 inclusive were equipped with the following part:

Air-pin Block (justification)		b3D	26.40
Air-pin Block group (b3D, 3D1 to 3D6 inclusive, a3D7, 3D8, 3D9, 3D10, a3D12 and a3D14)		Xb3D	29.68

To apply the improved part see Improvement No. 13.

Machines prior to 503, also 3603 to 4062 inclusive, were equipped with the following part:

Air-pin Block Shoe (for Locking Bar)		3D6	

This is obsolete and will no longer be furnished; order instead b3D6 (see Main List) which is interchangeable with 3D6.

Machines 3603 to 3882 inclusive were equipped with the following part:

Air-pin Block (justification)		a3D	26.40
Air-pin Block group (a3D, 3D1, to 3D6 inclusive, a3D7, 3D8, 3D9, 3D10 and a3D12)		Xa3D	29.35

To apply the improved part see Improvement No. 13.

Note D1 continued

Machines 923 to 3602 inclusive were equipped with the following parts:

Air-pin Block (justification)		a3D	26.40
shoe (for b13B)		a3D6	.75
guide screw (for a13C)		a3D11	.11
Air-pin Block group (a3D, 3D1, to 3D5 inclusive, a3D6, a3D7, 3D8, 3D9, 3D10, a3D11 and a3D12)		X3D	29.68

To apply the improved parts see Improvement No. 13.

Machines 503 to 922 inclusive were equipped with the following parts:

Air-pin Block (justification)		3D	*
shoe (for a13B)		a3D6	.75
guide screw (for a13C)		a3D11	.11
Air-pin Block group (3D to 3D5 inclusive, a3D6, a3D7, 3D8, 3D9, 3D10 and a3D11)		X3D	

and omitted a3D12.
*Block 3D is obsolete; order instead Block a3D and at the same time order Set Screw a3D12 (see Main List).
If a3D12 be ordered alone for machines prior to 923, Block 3D must be drilled and tapped for it.
To apply the improved parts see Improvement No. 13.

Machines prior to 503 were equipped with the following parts:

Air-pin Block (justification)		3D	*
shoe		3D6	.75
" screw (2)	234	3D7	.07
Air-pin Block group (3D to 3D10 inc.)		X3D	

and omitted a3D12.
*Block 3D is obsolete; order instead a3D and at the same time order Set Screw a3D12 (see Main List). If a3D12 be ordered alone for these machines, Block 3D must be drilled and tapped for it.
a3D7 may be applied to these machines if furnished together with b3D6 when ordered for the first time (see Main List).
To apply the improved parts see Improvement No. 13.

Note D2—Machines prior to 923 were equipped with the following part:

Bell-crank Fulcrum Pin cotter	96	7D1	.00

This part may be discarded if Screw (see Main List) is ordered and Block 3D is drilled and tapped for this Screw.

Note D3—Machines prior to 1923 were equipped with the following part:

Galley Trip Rod		8D	.34
Galley Trip Rod group (8D and 8D1)		X8D	.41

To equip these machines with the improved Rod a8D (see Main List) requires that Galley-trip-rod Arm a9D (see Main List) be furnished also.

Note D4—Machines prior to 1923 were equipped with the following part:

Galley-trip-rod Arm		9D	
Galley-trip-rod Arm group (9D to 9D3 inclusive)		X9D	

To equip these machines with the improved Arm a9D (see Main List) requires that Galley Trip Rod a8D (see Main List) be furnished also.

Note D5—Machines prior to 503 were equipped with the following parts:

Micrometer Wedge		20D	3.30
adjusting nut		20D2	.34
" " spring		20D3	.11
" " " screw (2)	248	20D4	.04
shank		20D1	.34
" nut	386	20D5	.05
" " lock nut	386	20D6	.05
" spring	635	20D7	.07
Micrometer Wedge group		X20D	

To apply the improved parts a20D1, a20D2 a20D3 and a20D5 (see Main List) to these machines requires that these parts be furnished together and that the Normal-wedge-locking-pin Stand 15B be counterbored and tapped for the Adjusting Screw a20D2.

Note D6—Plants using side-hole Matrices were equipped with the following part when ordered:

Normal Wedge (tabular, any set)		22D	13.20

Note D7—Machines on which unhardened Normal Wedges are used should be equipped with the following part:

Nornmal-wedge Protection Plate group		X64D	.34

Note D8—Machines prior to 535:
When Pump-trip Tube a49DD is furnished for one of these machines furnish also Cotter a35H10 and drill the rear end of the Rod 35H1H, where it projects through the Main Stand a36EE, to receive this Cotter.

Note D9—Machines prior to 1013 were equipped with the following part:

Space Transfer Wedge		52D	4.62
Space Transfer Wedge group (52D, 52D1 and 52D2)		X52D	5.69

To equip these machines with the improved parts a52D and a53D4 requires that both of these parts be furnished, and that clearance for a53D4 be cut in Type Pusher 29B and Air-pin Block 3C.

Note D10—Machines prior to 1013 were equipped with the following part:

Space-transfer-wedge Operating Rod			
yoke		53D4	.34
Space-transfer-wedge Operating Rod group (53DD, 53D1, 53D2 and 53D3)		X53D	2.92

53DD is assembled with 53D4. Price is 2.64

Note D11—Machines prior to 2997 when equipped with Display Type Attachment were equipped with the following parts:

Normal Wedge			
packing piece		a21D3D	*
" " pin		a21D4	

and omitted 32C1.
*a21D3D was assembled with a21D4. These parts are obsolete; order instead Packing Piece 32C1 and cut clearance for it in Guide 7C (or a7C), discarding a21D3D.

Note D12—Type-&-Rule Casters prior to 7143 (except 6953, 6963 to 6982 inclusive) were equipped with the Air-pin Block 3D, a3D, b3D or c3D the same as the Composing Machine together with cover Plate a3D15 and Cover-plate Screws 3D2. These parts are obsolete for Type-&-Rule Casters; order instead Air-pin Block a3D16.

Section E

Note E1—Machines prior to 4163 were equipped with the following part:

Base Hingle (for door) (2)		1E1	

and omitted a1E2.
These Hingles 1E1 are obsolete and will no longer be furnished. The improved Hinges a1E1 can be applied to these machines if the Nuts a1E2 are furnished also.

Note E2—Machines equipped with Speed Regulating Attachment have the following part:

Belt-shifter-operating-bar Lever bracket		100E2	1.32

and omit X2E.
See Attachment 9CU.

Note E3—Machines equipped with Cam Oiling Device and Motor on the Cam Shaft side were equipped with the following part:

Belt Shifter Arm (rear)		a3E8	1.66

Since all motors are now mounted on the Melting Pot side of the machine this Arm is no longer used.

Machines equipped with Speed Regulating Attachment are equipped with the following parts:

Belt Shifter Arm (for Display Type Attachment)		a3E5	1.32
clamp		a3E6	.26
" bolt	111	a3E7	.11

and omit 3E, 3E2 and 3E3.

Belt Shifter Ring (for Display Type Attachment)		b5E3	5.94

and omit 5E and 5E1.

Belt-shifter-ring Rod (for Display Type Attachment)		a6E3	1.19
nut	329	a6E4	.14

and omit 6E and 6E1.
See Attachment 9CU.

Machines equipped with Display Type Attachment with the superseded Cone Pulleys instead of Speed Regulating Attachment were equipped with the following part:

Belt Shifter Arm		a3E4	1.66

and omitted 3E.
To apply the improved part see Attachment 9CU.

Note E4—Machines equipped with Display Type Attachment with the superseded Cone Pulleys instead of Speed Regulating Attachment were equipped with the following part:

Belt Shifter Eye (forked)		a4E1	2.32

and omitted 4E.
To apply the improved part see Attachment 9CU.

Note E5—Machines prior to 520 were equipped with the following parts:

Cam-lever-shaft Stand (for 14EE and 24EE)		9E	26.40
Cam-lever-shaft Stand group (9E and 9E1		X9E	26.92

To apply the improved parts see Improvement No. 13.

Note E6—Machines 1603 to 3862 inclusive were equipped with the following parts:
Cam Shafts Xc10E and Xa11E with the following Cams in place: X71E, X66E, X69E, Xa13E, b86E, X23E, X52E, X43E, X75E. Price per pair 111.01
These Cam Shafts can be furnished only in pairs with all Cams in place as above listed. Should it be necessary to replace a pair of Cams the two Shafts Xc10E and Xa11E with their Cams in place must be returned to our factory. No charge, other than for the material used (at the prices listed), is made for repairing Cam Shafts.
To apply the improved parts see Impovrement No. 13.

Note E6—continued

Machines 520 to 1602 inclusive were equipped with the following:

CAM SHAFTS Xb10E and Xa11E with the following CAMS in place: X71E, X66E, X69E, Xa13E, a86E, X23E, X52E, X43E, X75E.

The CAM a86E is obsolete and will no longer be furnished. Instead the improved wide CAM b86E will be furnished for these machines. This requires that the improved LOCKING-BAR-CAM LEVER c34EE be furnished at the same time. Therefore for these machines order the same as for machines 1603 to 3862 inclusive (see preceding item).

To apply the improved parts see Improvement No. 13.

Machines 503 to 519 inclusive were equipped with the following:

CAM SHAFT distance ring 10E2 1.00

CAM SHAFTS Xa10E and Xa11E with the following CAMS in place: X71E, X66E, X69E, Xa13E, X23E, X52E, X43E, X75E. Price per pair 108.26

This style also applies to any prior machines which have been equipped with Xa13E for increased stroke of CENTERING PIN but not with the LOCKING-BAR CAM.

These CAM SHAFTS can be furnished only in pairs with all CAMS in place as above listed. Should it be necessary to replace a pair of CAMS the two SHAFTS Xa10E and Xa11E with their CAMS in place must be returned to our factory. No charge, other than for the material used (at the prices listed) is made for repairing CAM SHAFTS.

To apply the improved parts see Improvement No. 13.

Machines 103 to 502 inclusive were equipped with the following:

CAM SHAFT distance ring 10E2 1.00

CAM SHAFTS X10E and X11E with the following CAMS in place: X71E, X66E, X69E, X13E, X23E, X52E, X43E, X75E. Price per pair 108.26

These CAM SHAFTS can be furnished only in pairs with all CAMS in place as above listed. Should it be necessary to replace a pair of CAMS the two SHAFTS X10E and X11E with their CAMS in place must be returned to our factory. No charge, other than for the material used (at the prices listed), is made for repairing CAM SHAFTS.

To apply the improved parts see Improvements Nos. 4 and 13.

Note E7—Machines prior to 2647 were equipped with the following parts:

CAM-SHAFT STAND cap (long for 11E) (3) .... 12E1 *
and omitted a12E15 and a12E16.
*Cannot be applied outside our factory.

The old CAPS 12E1 can be altered to make the new CAPS a12E15 and a12E16 when applying the Cam Oiling Device or the Speed Re-gulating Attachment.

See Attachment 9CU and Improvement No. No. 21.

Machines prior to 2283 were equipped with the following parts:

CAM-SHAFT STAND Winkley oiler (6) ..... 12E14 .20

To apply the additional OILER to above machines drill and tap CAP 12E8.

Machines prior to 520 were equipped with the following part:

CAM-SHAFT STAND ..... 12EE *
CAM-SHAFT STAND group (12EE, 12E12 and 12E13) ..... X12E †
and omitted one of 12E14, also a12E15 and a12E16.
*12EE is assembled with 12E1 to 12E9 inclusive, 12E11 and 12E14.
†This style CAM-SHAFT STAND is obsolete and will no longer be furnished.

To apply the improved parts see Improvement No. 13.

Note E8—Machines prior to 502 were equipped with the following parts:

CENTERING-PIN-CAM (driving marked D in circle) ..... 13EE *
(driven marked D in square) ..... 13E1 *
CENTERING-PIN CAM group X13E 7.50
*13EE is assembled with 13E1. Order by complete symbol X13E.

To apply a pair of CAMS requires that the CAM SHAFTS be returned to our factory (see Note E6).

To apply the improved parts see Improvement No. 4.

Note E9—Machines prior to 520 were equipped with the following parts:

CENTERING-PIN-CAM LEVER ..... 14EE *
CENTERING-PIN-CAM LEVER group (14EE and 14E5) X14E 19.93
*14EE is assembled with 14E1 to 14E4 inclusive. Price assembled 19.80

This CAM LEVER 14EE is required if the machine has not been equipped with the LOCKING-BAR CAM.

To apply the improved parts see Improvement No. 13.

Note E10—Machines prior to 2322 were equipped with the following parts:

CENTERING-PIN LEVER plate (for 15D1 and 57D1) ..... a16E6 .40
rivet (2) ..... **7162**.. a16E7 .03

To apply these improved parts to these machines requires that they be furnished together and the CENTERING-PIN LEVER altered to suit.

Note E10—continued

Machines prior to 503 were equipped with the following parts:

CENTERING-PIN LEVER ..... 16EE *
CENTERING-PIN LEVER group (16EE, 16E1, 16E2, 16E3 and 16E5) X16E 17.66
and omitted a16E6 and a16E7.
*16EE was assembled with 16E4. Price assembled is 17.16

To apply the improved parts see Improvement No. 4.

Note E11—Machines 3883 to 4062 inclusive were equipped with the following parts:

JAW-TONGS BELL CRANK block (for a28E3) .. a21E12 .34
rivet (2) ..... a21E13 .04

The parts a21E12 and a21E13 will be supplied as repair parts and also for prior machines when applying Improvement No. 13. If the BELL CRANK is required the improved BELL CRANK b21E10E (see Main List), which has the BLOCK cast as a lug on it, will be supplied.

Machines 520 to 3882 inclusive were equipped with the following parts:

JAW-TONGS BELL CRANK (upper) a21E10E
JAW-TONGS BELL CRANK group (a21EE, 21E2 to 21E9 inclusive, and a21E10E) ... Xa21E
and omitted a21E12 and a21E13.

This BELL CRANK will no longer be furnished; order instead from the Main List as those parts can be used in place of these superseded parts.

To apply the improved parts see Improvement No. 13.

Machines prior to 520 were equipped with the following parts:

JAW-TONGS BELL CRANK ..... 21EE *
ball stud ..... 21E1 ★.53
JAW-TONGS BELL CRANK group (21EE and 21E2 to 21E9 inclusive) X21E 14.42
and omitted b21E10E.
*21EE is assembled with 21E1. Price 13.20

To apply the improved parts see Improvement No. 11.

Note E12—Machines prior to 520 were equipped with the following parts:

JAW-TONGS-CAM LEVER ..... 24EE *
ball extension 24E1 1.32
clamp bolt ..... **15**.. 24E2 .12
JAW-TONGS-CAM LEVER group (24EE, 24E1 and 24E2) X24E 18.60
and omitted one of 24E2, also a24E7 and a24E8.
*24EE is assembled with 24E3 to 24E6 inclusive. Price 17.16

To apply the improved parts see Improvement No. 11.

Note E13—Machines 520 to 2014 inclusive (except 2013, for which use Main List), were equipped with the following parts:

JAW-TONGS SPRING BOX
spring rod (lower) (Plug for Ball Socket) .. a26E14 1.50
" " nut ..... **316**.. a26E15 .07
" " " lock nut ..... **318**.. a26E16 .08
" " (upper) a26E17 1.00
" " nut ..... **316**.. a26E19 .07
" " " lock nut ..... **318**.. a26E20 .08
JAW-TONGS SPRING BOX group (a26E1 to a26E28 inclusive, includes also BALL SOCKET Xa27E and BALL SOCKET Xa81E) Xa26E 30.12

The object of the improved parts (see Main List) is to have the NUTS the same thread as NUTS a26E27. Either ROD may be replaced by the improved ROD (see Main List) provided the two improved NUTS (see Main List) are ordered at the same time.

Machines prior to 520 were equipped with the following parts:

JAW-TONGS SPRING BOX
tube (outside) 26E1 3.50
adjusting cap 26E2 1.00
" " lock nut ..... 26E3 .60
plug (right end) ..... 26E4 .47
spring rod (right) ..... 26E5 .24
" " nut ..... **310**.. 26E6 .07
" " spring abutment ..... 26E7 .53
" " washer ..... 26E8 .13
" (right, inside) ..... **653**.. 26E9 .26
" (" intermediate) ..... **652**.. 26E10 .34
" (" outside) ..... **651**.. 26E11 .40
tube (inside) 26E12 2.84
" ball plug (right end) ..... 26E13 .53
" plug (left end) ..... 26E14 .47
ball plunger 26E15 2.64
" " brake (wood) ..... 26E16 .47
spring rod (left) ..... 26E17 .13
" " nut ..... **310**.. 26E18 .07
" " " lock nut ..... **312**.. 26E19 .07
" " spring abutment ..... 26E20 .53
" (left, inside) ..... **656**.. 26E21 .26
" (" intermediate) ..... **655**.. 26E22 .34
" (" outside) ..... **654**.. 26E23 .40
JAW-TONGS SPRING BOX group (26E1 to 26E23 inclusive) X26E 16.29
and omitted Xa26E.

To apply the improved parts see Improvement No. 11.

Note E14—Machines prior to 520 were equipped with the following parts:

JAW-TONGS-SPRING-BOX BALL SOCKET 27E 1.19
plug 27E1 1.00
" lock nut (2) ..... 27E2 .40
JAW-TONGS-SPRING-BOX BALL SOCKET group X27E 2.99

To apply the improved parts see Improvement No. 11.

Note E15—Machines prior to 520 were not equipped with Xa81E.

To apply the improved parts see Improvement No. 11.

Note E16—Machines 3603 to 3882 inclusive were equipped with the following parts:

LOCKING-BAR BELL CRANK (lower for b13C) c28EE *
spring post ..... **832**.. 28E1 ★.07
LOCKING-BAR BELL CRANK group Xc28E 3.64
and omitted a28E2 and a28E3.
*c28EE is assembled with 28E1. Order by complete symbol Xc28E.

To apply the improved parts see Improvement No. 13.

LOCKING-BAR BELL CRANK (upper for b13B) c29EE *
spring post ..... **832**.. 29E1 ★.07
LOCKING-BAR BELL CRANK group Xc29E 3.64
and omitted a29E2.
*c29EE is assembled with 29E1. Order by complete symbol Xc29E.

To apply the improved part see Improvement No. 13.

Machines 1603 to 3602 inclusive were equipped with the following parts:

LOCKING-BAR BELL CRANK (lower for a13C) b28EE *
spring post ..... **832**.. 28E1 ★.07
fulcrum pin (for a82EE) ..... **849**.. a28E2 ★.05
LOCKING-BAR BELL CRANK group Xb28E 3.64
and omitted a28E3.
*b28EE is assembled with 28E1 and a28E2. Order by complete symbol Xb28E.

To apply the improved parts see Improvement No. 13.

LOCKING-BAR BELL CRANK (upper, for a13B) b29EE *
spring post ..... **832**.. 29E1 ★.07
fulcrum pin (for a83EE) ..... **849**.. a29E2 ★.05
LOCKING-BAR BELL CRANK group Xb29E 3.64
*b29EE is assembled with 29E1 and a29E2. Order by complete symbol Xb29E.

To apply the improved parts see Improvement No. 13.

Machines 503 to 1602 inclusive were equipped with the following parts:

LOCKING-BAR BELL CRANK (lower, for a13C) a28EE *
spring post ..... **832**.. 28E1 ★.07
fulcrum pin (for a82EE) ..... **849**.. a28E2 ★.05
and omitted a28E3.
*This BELL CRANK a28EE is obsolete and will no longer be furnished. If required, order instead BELL CRANK Xb28E and at the same time order with it BELL CRANK Xb29E (see preceding item) and STUD Xb32E (see Main List). Directions for applying will be furnished when required (see Note E17).

To apply the later improved parts see Improvement No. 13.

LOCKING-BAR BELL CRANK (upper, for a13B) a29EE *
spring post ..... **832**.. 29E1 ★.07
fulcrum pin (for a83EE) ..... **849**.. a29E2 ★.05
*This BELL CRANK a29EE is obsolete and will no longer be furnished. If required, order instead BELL CRANK Xb29E and at the same time order with it BELL CRANK Xb28E (see above) and STUD Xb32E (see Main List). Directions for applying will be furnished when required (see Note E17).

To apply the later improved parts see Improvement No. 13.

Machines 503 to 3602 inclusive were equipped with the following parts:

LOCKING-BAR-BELL-CRANK LATCH (lower) .... a82EE *
spring post ..... a82E1 ★.05
LOCKING-BAR-BELL-CRANK LATCH group ... Xa82E 1.32
*a82EE is assembled with a82E1. Order by complete symbol Xa82E.

To apply the improved part see Improvement No. 13.

LOCKING-BAR-BELL-CRANK LATCH (upper) ... a83EE *
spring post ..... a83E1 ★.05
LOCKING-BAR-BELL-CRANK LATCH group ... Xa83E 1.32
*a83EE is assembled with a83E1. Order by complete symbol Xa83E.

To apply the improved parts see Improvement No. 13.

LOCKING-BAR-BELL-CRANK-LATCH-SPRING POST (in a36EE) ..... a85E .07

To apply the improved part see Improvement No. 13.

Machines prior to 503 were equipped with the following parts:

LOCKING-BAR BELL CRANK (lower, for 13C) . 28EE *
spring post ..... **832**.. 28E1 ★.07
LOCKING-BAR BELL CRANK group X28E 3.64
and omitted a28E2 and a28E3.
*28EE is assembled with 2EE1. Order by complete symbol X28E.

To apply the improved parts see Improvement No. 13.

LOCKING-BAR BELL CRANK (upper, for 13B) . 29EE *
spring post ..... **832**.. 29E1 ★.07
LOCKING-BAR BELL CRANK group X29E 3.64
and omitted a29E2.
*29EE is assembled with 29E1. Order by complete symbol X29E.

These machines were not equipped with Xa82E, Xa83E, a84E nor a85E.

To apply the improved parts see Improvement No. 13.

Note E16—continued

Machines 2003 to 3602 inclusive were equipped with the following parts:

LOCKING-BAR-BELL-CRANK-LATCH SPRING (2) ..... **6131**.. b84E .11
plate (long) (2) ..... a84E1 .04
" (short) (2) ..... a84E2 .04
LOCKING-BAR-BELL-CRANK-LATCH SPRING group each ..... Xb84E .19
To apply the improved parts see Improvement No. 13.

Machines 503 to 2002 inclusive were equipped with the following parts:

LOCKING-BAR-BELL-CRANK-LATCH SPRING (2) ..... **666**.. a84E
and omitted a84E1 and a84E2.
These SPRINGS will no longer be furnished. When ordering the new SPRINGS b84E for the first time one each of the PLATES a84E1 and a84E2 must be ordered with each SPRING.
To apply the later improved parts see Improvement No. 13.

Machines prior to 503 were not equipped with a84E.

Machines 3603 to 3882 inclusive were equipped with the following parts:

LOCKING-BAR-BELL-CRANK SPRING (2).. **6171**. a30E .26
plate (4) ..... a30E1 .04
LOCKING-BAR-BELL-CRANK SPRING group each ..... Xa30E .34
To apply the improved parts see Improvement No. 13.

Machines prior to 3603 were equipped with the following parts:

LOCKING-BAR-BELL-CRANK SPRING (2).. **642**.. 30E .14
plate (4) ..... 30E1 .04
LOCKING-BAR-BELL-CRANK SPRING group each ..... X30E .22
To apply the improved parts see Improvement No. 13.

Machines prior to 3883 inclusive were equipped with the following part:

LOCKING-BAR-BELL-CRANK-SPRING POST (in a36EE) ..... **883**.. 31E .07
To apply the improved part see Improvement No. 13.

Note E17—Machines 503 to 1602 inclusive were equipped with the following parts:

LOCKING-BAR-BELL-CRANK STUD a32E
nut ..... **314**.. a32E1
This STUD a32E is obsolete and will no longer be furnished. If required, order instead STUD Xb32E (see Main List) and at athe same time order with it BELL CRANKS Xb28E and Xb29E (see Note E16). This improved STUD is 7-16″ in diameter and is tapering where it fits in the MAIN STAND. To apply it requires special tools which we will loan the customer, charging $37.60 for them but giving full credit upon their return in good condition. No credit is allowed for return of old material replaced. Machines 1603 and following are equipped with these improved parts.
To apply the improved parts see Improvement No. 13.

Machines prior to 503 were equipped with the following part:

LOCKING-BAR-BELL-CRANK STUD (in 36EE).. 32E .47
and omitted b32E1.
To apply the improved part see Improvement No. 13.

Note E18—Machines 1603 to 3862 inclusive were equipped with the following part:

LOCKING-BAR CAM b86E 3.75
This style CAM must be used if the machine has LOCKING BARS with LATCHES a82E and a83E.
To apply the improved part see Improvement No. 13.

Machines 520 to 1602 inclusive were equipped with the following part:

LOCKING-BAR CAM a86E
This superseded CAM will no longer be furnished.
To apply the improved part see Improvement No. 13

Machines prior to 520 omitted the Locking-bar Cam.

To apply the improved part see Improvement No. 13.

Note E19—Machines 520 to 1602 inclusive were equipped with the following parts:

LOCKING-BAR-CAM LEVER ..... b34EE *
bushing (2) ..... a34E1 .24
" pin (2) ..... **719**.. a34E2 .01
roller ..... a34E3 .40
" pin ..... a34E6 .20
oil pipe ..... a34E7† .26
" " block ..... a34E8 .26
*b34EE is obsolete and will no longer be furnished.
†Machines prior to 1151 were not equipped with a34E7 nor a34E8.
To apply the improved parts see Improvement No. 13.

Note E19—continued

Machines prior to 520 were equipped with the following parts:

LOCKING-BAR LEVER 34E 3.96
link (2) ..... 34E1 .66
" pin (2) ..... 34E2 .11
" " cotter (4) ..... **96**.. 34E3 .00
LOCKING-BAR LEVER group (34E to 34E5 inclusive) X34E 5.91
and omitted b34E6, a34E7 and a34E8.
To apply the improved parts see Improvement No. 13

Note E20—Machines prior to 520 were equipped with the following parts:

LOCKING-BAR-LEVER FULCRUM STUD ..... 35E .79
nut (front) ..... **319**.. 35E1 .08
" (rear) ..... **327**.. 35E2 .11
washer ..... **49**.. 35E3 .07
LOCKING-BAR-LEVER FULCRUM STUD group.. X35E 1.05
To apply the improved parts see Improvement No. 13.

Note E21—Machines 3603 to 3882 inclusive were equipped with the following parts:

LOCKING-BAR OPERATING ROD ..... a33E .66
bearing block b33E1 1.00
spring ..... **667**.. a33E7 .40
stop ..... a33E8 .13
LOCKING-BAR OPERATING ROD group (a33E, b33E1, a33E2, a33E5 to a33E9 inclusive) Xb33E 3.06
To apply the improved parts see Improvement No. 13.

Machines 503 to 3602 inclusive were equipped with the following parts:

LOCKING-BAR OPERATING ROD ..... a33E .66
bearing block a33E1 1.00
spring ..... **667**.. a33E7 .40
stop ..... a33E8 .13
LOCKING-BAR OPERATING ROD group (a33E, a33E1, a33E2, a33E5 to a33E9 inclusive)* Xa33E 3.06
*Machines prior to 2710 were not equipped with a33E9 but this part can be applied to any machine.
To apply the improved parts see Improvement No. 13.

Machines prior to 503 were equipped with the following parts:

LOCKING-BAR OPERATING ROD ..... 33E .66
bearing block ..... 33E1E *
" " lock nut (R. H.) ..... **310**.. 33E2 .07
" " plate ..... 33E3 *
" " rivet (2) ..... 33E4 ★.01
eye ..... 33E5 .66
" lock nut (L. H.) ..... **311**.. 33E6 .07
LOCKING-BAR OPERATING ROD group (33E, 33E1E, 33E2, 33E5 and 33E6) X33E 3.44
and omitted a33E7 to a33E10 inclusive.
*33E1E is asesmbled with 33E3 and 33E4.
Price 1.98
To apply the improved parts see Improvement No. 13.

Note E22—Machines prior to 1603 were not equipped with Main-stand Bushing a36E39.

These BUSHINGS may be applied to these machines if the holes in the MAIN STAND 36EE are enlarged to receive them.

Note E23—Machines prior to 3603 were equipped with the following parts:

MATRIX-JAW TONGS lever (4) ..... 37E4 *
" bushing (Jaw end) (2) ..... 37E5 *
MATRIX-JAW TONGS group (37E1 to 37E7 inclusive) X37E 19.80
and omitted a37E8 to a37E12 inclusive.
*We cannot furnish separate parts of these TONGS. Instead we exchange repaired TONGS for worn TONGS. Price for exchange 9.90
To apply the improved parts see Improvement No. 12.

Note E24—Machines 520 to 3602 inclusive were equipped with the following parts:

MATRIX-JAW TONGS lever (4) ..... 38E7 *
" bushing (Jaw end) (2) ..... 38E8 *
MATRIX-JAW TONGS group (a38E1, a38E2, 38E6 to 38E10 inclusive) Xa38E 19.80
and omitted a38E11 and a38E13 to a38E16 inclusive.
*We cannot furnish separate parts of these TONGS. Instead we exchange repaired TONGS for worn TONGS. Price for exchange 9.90
To apply the improved parts see Improvement No. 12.

Machines prior to 520 were equipped with the following parts:

MATRIX-JAW TONGS
connecting eye ..... 38E1 *
" " (L. H.) ..... 38E2 *
" " adjusting nut ..... 38E3 .66
" " " " lock nut. **312**.. 38E4 ★.07
" " " " lock nut L. H.) ..... **311**.. 38E5 ★.07
lever (4) ..... 38E7 *
" bushing (Jaw end) (2) ..... 38E8 *
MATRIX-JAW TONGS group (38E to 38E10 inclusive X38E 19.80
and omitted a38E11 and a38E13 to a38E16 inclusive.
*We cannot furnish separate parts of these TONGS except those for which a price is given. Instead we exchange repaired TONGS for worn TONGS. Price for exchange 9.90
To apply the improved parts see Improvement No. 12.

Note E25—Machines prior to 503 were equipped with the following parts:

MATRIX-JAW-TONGS STUD (front, in 36EE).. 39E *
washer ..... 39E3 *
*These parts are obsolete; order instead STUD a39E and ARM a39E3 (see Main List); if the machine is still equipped with single SPRING BOX alter a39E to clear it; the ARM a39E3 can be used in place of WASHER 39E3 without other change.

Note E26—Machines prior to 4573 (except 4353, 4478 to 4487 inclusive, 4498 to 4517 inclusive, 4527, 4533 to 4537 inclusive, 4542, 4546, 4549, 4551, 4552 to 4568, for which use Main List) were equipped with the following parts:

MOLD-BLADE CAM (driving, marked G in circle) a43EE
(driven, marked G in square) a43E1
MOLD-BLADE CAM group ..... X43E *
*The improved CAMS X43E (see Main List) are interchangeable with these superseded CAMS and will be furnished whenever a new pair of CAMS is ordered. The improved CAMS give better delivery of the type from the MOLD and require slightly different adjustment of the MOLD-BLADE CONNECTING ROD; they should be applied when Improvement No. 6 is applied.

Note E27—Machines prior to 1843 were equipped with the following parts:

MOLD CLAMP (side) ..... 49E †
bolt ..... **121**.. 49E1 *
" washer ..... **413**.. 49E2 .07
and omitted a49E3.
*This BOLT 49E1 is obsolete; order instead MOLD CLAMP STUD a49E1 and NUT a49E3 (see Main List) which are interchangeable with it when furnished together.
†When the Low Quad Device is applied to these machines this CLAMP must be altered or a new one ordered.

Note E28—Machines prior to 2203 not equipped with Low Quad Device were equipped with the following part:

MOLD CLAMP (front) ..... 48E .26
and omitted 89E1.
The improved MOLD CLAMP 89E1 is required by all standard MOLDS and must be furnished when the Low Quad Device is applied to a machine. See Improvement No. 1.

Machines prior to 1843 were equipped with the following parts:

MOLD CLAMP (front) ..... 48E .26
bolt ..... **121**.. 48E1 *
" washer ..... **413**.. 48E2 .07
and omitted a48E3.
*This BOLT 48E1 is obsolete and will no longer be furnished; order instead MOLD-CLAMP STUD a48E1 and NUT a48E3 (see Main List) which are interchangeable with it.

Note E29—Continuous Strip Molds with diagonal holes in the Base Plate require the following:

MOLD SCREW (1-4″ x 1 1-4″) (2) ..... a50E .11
(right) (1-4″ x 1 7-16″) ..... a50E1 .11

Those Molds without diagonal holes in the Base Plate take standard

MOLD SCREW (1-4″ x 1 1-4″) (3) ..... a50E .11
Style VE Molds require the following:
MOLD SCREW (3-16″ x 1 5-32″) (3)... **2168**. IMVE15 .08
washer (3) ..... **439**. IMVE16 .04

Note E30—Machines prior to 3748 were not equipped with Oil Guard 113E1.

To apply the improved part see Improvement No. 21.

Note E31—Machines 3748 to 4492 inclusive were equipped with the following part:

OIL PAN 114E1
and omitted X114E
114E1 is obsolete; order instead OIL PAN X114E (see Main List) which is interchangeable with 114E1.

Machines prior to 7120 were not equipped with:

OIL PAN plate a114E8
" rivet ..... **7230**.. a114E9

Machines prior to 3748 were not equipped with Oil Pan group X114E.

To apply the improved part see Improvement No. 21.

Note E32—Machines 3748 to 4492 inclusive were equipped with the following parts:

OIL-PAN SHELF ..... 115E1E *
link (4) ..... 115E6 *
" fulcrum pin (upper) (4) ..... 115E7 *
OIL-PAN SHELF group (115E1E, 115E2, 115E3. 115E6, 115E7, 115E9 and 115E10) X115E and omitted a115E4, a115E5, a115E8, a115E11 and a115E12.
*115E1E was assembled with 115E5, 11E6, and with 2 REINFORCING BARS and 10 RIVETS. 115E1E is obsolete; order instead a115E1E (see Main List) which is interchangeable with it.

Machines prior to 3748 were not equipped with Oil-pan Shelf group Xa115E.

To apply the improved parts see Improvement No. 21.

Note E33—Machines prior to 3748 were not equipped with Oil - pan - shelf-bracket Bolts 116E1.
To apply the improved part see Improvement No. 21.

Machines equipped with Speed Regulating Attachment are equipped with the following part:
SPEED-BRACKET SCREW (long) ..... **2217** .. 130E1 .13
and omit one of 116E1.
See Attachment 9CU.

Note E34—Machines prior to 4453 were equipped with the following part:
PAPER-TOWER OPERATING ROD eye (upper) .. 54E3 .53
PAPER-TOWER OPERATING ROD group (54E to 54E4 inclusive) X54E 2.12
To apply the improved parts see Improvement No. 15.

Note E35—Machines prior to 3603 were equipped with the following part:
PIN-JAW-TONGS-SPRING BELL CRANK (front) . 58EE *
*58EE is obsolete; order instead the improved BELL CRANK a58EE (see Main List) which is interchangeable with it.

Note E36—Machines prior to 3603 were equipped with the following part:
PIN-JAW-TONGS-SPRING LEVER ..... 62EE *
*62EE is obsolete; order instead the improved LEVER a62EE (see Main List) which is interchangeable with it.

Note E37—Machines 3306 and 3320 to 4207 inclusive were equipped with the following parts:
PULLEY (loose) ..... 65EE *
screw ..... a65E1 ★.07
*65EE was assembled with a65E1. This PULLEY 65EE is obsolete; order instead the improved PULLEY a65E (see Main List). When the PULLEY a65E is applied for the first time to one of these machines the driving PULLEY 64E and CAM SHAFT 10E must be altered to suit.

Machines prior to 3320 (except 3306, for which see above) were equipped with the following parts:
PULLEY (loose) ..... 65EE *
screw ..... **224** .. 65E1 ★.07
*65EE was assembled with 65E1. This PULLEY 65EE is obsolete; order instead a65E and alter driving PULLEY 64E and CAM SHAFT 10E to suit.

Machines equipped with Speed Regulating Attachment prior to machine 4208 have the following parts:
PULLEY (loose) ..... a65E2E *
pin (for 104E1) ..... a65E3 ★.07
screw (for oil hole) ..... a65E1 ★.07
*a65E2E is assembled with a65E1 and a65E3. This PULLEY is obsolete; order instead PULLEY Xa65E2 (see Attachment 9CU) and alter the driving PULLEY and CAM SHAFT to suit.
See Attachment 9CU).

Note E38—Machines 3567, 3664 to 3672 inclusive, 3683 to 3687 inclusive, and 3823 to 4226 inclusive, were equipped with the following parts:
TYPE-PUSHER CAM (driven, marked H in square) ..... b75E1E *†
latch ..... a75E2 †
TYPE-PUSHER CAM group (b75E1E, a75E2 to a75E5 inclusive).
*b75E1E was assembled with a75E and a75E6.
†These parts are obsolete and will no longer be furnished. The improved LATCH b76E2 (see Main List) has been made stronger to prevent breakage. It can be applied to these machines in the customer's plant by enlarging the hole for it in the CAM. If a new CAM is required the CAM SHAFTS must be returned to our factory.

Machines prior to 3825 (except 3567, 3664 to 3672 inclusive, and 3683 to 3687 inclusive, and 3683 to 3687 inclusive, for which see above) were equipped with the following parts:
TYPE-PUSHER CAM (driven, marked H in square) ..... a75E1E *†
stop ..... 75E2 †
and omitted a75E3 to a75E6 inclusive.
*a75E1E was assembled with a75E.
†These parts are obsolete and will no longer be furnished. The LATCH b75E2 (see Main List) provides a back stop which does not interfere with the movement of the BELT SHIFTER. To apply this to these machines requires that the complete LOCKING-BAR CAM group X75E (see Main List) be ordered and the CAM SHAFTS returned to our factory to have these parts applied.

Note E39—Machines prior to 1151 were equipped with the following parts:
TYPE-PUSHER CONNECTING ROD
lock nut (for 78E2) ..... **310** .. 77E5 .07
spring ..... **657** .. 77E6 .40
TYPE-PUSHER CONNECTING ROD group (77E to 77E6 inclusive) X77E
and omitted a77E7.
To equip these machines with the improved parts, which provide greater spring load, requires that 77E2, a77E6 and a77E7 be ordered together and 77E5 be discarded.

Note E40—All of the machines 4958 to 4967 inclusive, 5023 to 5027 inclusive, and 5064 to 5232 inclusive, which were equipped with Display Type Attachment (including all Type-&-Rule Casters) were equipped with the following parts:
WORM SHAFT 80E* 5.00
key (long, for 80E1 and 80E2) ..... 80E4* .07
nut ..... a80E8 ★.66
WORM SHAFT group (including 80E to 80E4 inclusive, 80E6, a80E7 and a80E8) Xa80E 22.90
*Parts 80E2, a80E7 and a80E8 can be applied outside our factory; for any other parts the complete WORM SHAFT must be returned to our factory. No charge other than for parts used is made for repairing WORM SHAFTS.

All other Type-&-Rule Casters and Composing Machines prior to 5233 not included in the above were equipped with the following parts:
WORM SHAFT 80E* 5.00
key (long, for 80E1 and 80E2) ..... 80E4* .07
WORM SHAFT group (including 80E to 80E6 inclusive) X80E 21.78
*Parts 80E2 and 80E5 can be applied outside our factory; for any other parts the complete WORM SHAFT must be returned to our factory. No charge other than for parts used is made for repairing WORM SHAFTS.

Type-&-Rule Casters prior to 5673 were equipped with:
WORM SHAFT worm 80E6
" " " key 80E3
and omitted a80E13.

Note E41—Machines prior to 3748 (except 3567, A3606, 3613, 3664 to 3677 inclusive, and 3707 to 3712 inclusive, for which use Main List) when equipped with Low Quad Device were equipped with the following part:
MOLD-BLADE-CARRIER-LATCH BELL CRANK stud ..... 87E8 .10
This STUD 87E8 is required only for Style B Molds rebuilt for low quad; for all Standard MOLDS use STUD a87E8 (see Main List).

Machines 2685, 2751 and 2755 to 3612 inclusive when equipped with Low Quad Device were with the following parts:
MOLD-BLADE-CARRIER-LATCH BELL CRANK ... a87E1
lever a87E2
" link (2) a87E3
" " pin (2) a87E4
" stud a87E5
BELL CRANK a87E1 has been superseded by BELL CRANK 87E1 (see Main List) and the other parts a87E2 to a87E5 inclusive have been discarded and will no longer be furnished.

Note E42—Machines first equipped to use Style B Molds rebuilt for low quad were equipped with the following parts:
MOLD-BLADE TONGS
equalizing lever 88E1
" " bushing 88E2
" " " ring 88E3
operating lever 88E4
stud 88E5
NOTE: These parts were superseded by the following·

Machines later equipped to use Style B Molds rebuilt for low quad were equipped with the following parts:
MOLD-BLADE TONGS
equalizing lever a88E1
" " bushing 88E2
" " " ring 88E3
operating lever a88E4
" " latch a88E6
" " " pin a88E8
" " " spring ..... **6125** .. a88E10 .07
" " pin a88E7
" " spring pin a88E9
stud 88E5
MOLD-BLADE TONGS group Xa88E 9.00
None of these parts is required for standard MOLDS.

Note E43—Machines prior to 3748 were not equipped with Packing Pieces 168E1.
To apply the improved parts see Improvement No. 21.

Note E44—Machines equipped with Display Type Attachment prior to 4674 were equipped with the following parts:
For Composing Machines:
INTERLOCKING-LEVER OPERATING ROD ..... 109E1 .66
eye ..... 109E2 .79
" pin ..... 109E3 .07
and omitted a109E6.
For Type-&-Rule Casters:
INTERLOCKING-LEVER OPERATING ROD ..... a109E7 .79
eye ..... 109E2 .79
" pin ..... 109E3 .07
and omitted a109E6.
The improved parts a109E1, a109E2E and a109E6 for the COMPOSING MACHINE; or b109E7, a109E2E and a109E6 for the TYPE-&-RULE CASTER, are required if the Automatic Cutter is applied.
To apply these improved parts requires that they be furnished together when ordered for the first time.

Note E45—Machines 2942 to 3612 inclusive equipped with Display Type Attachment were equipped with the following parts:
CENTERING-PIN-LEVER GAG BLOCK ..... 140E1E *
pin ..... 140E2 ★.05
*140E1E was assembled with 140E2.
These parts are obsolete; order instead a140E1E which is interchangeable with 140E1E.

Machines equipped with Display Type Attachment prior to 2942 were not equipped with the following parts:
GAG BLOCK group X140E 2.96
NORMAL-WEDGE-LOCKING-PIN LIFTING HANDLE ..... a14B12 .28
These improved parts may be applied to these machines if the CENTERING-PIN LEVER a16EE is altered to suit the GAG BLOCK on machines prior to 2726 (machines 2726 and following are thus altered); to apply the LIFTING HANDLE requires no other change.

Note E46—Machines with motor on the Cam Shaft side are equipped with the following:
BELT SHIFTER ARM (rear) a3E8 1.66
clamp ..... 3E2 .26
" bolt ..... **118** .. 3E3 .11
set screw ..... **116** .. 3E1 .10
BELT SHIFTER ARM group X3E8 2.13

Machines with speed regulation from cone pulleys on the earliest Display Type Attachments were equipped with the following parts:
BELT SHIFTER ARM (rear) a3E4 1.66
clamp ..... 3E2 .26
" bolt ..... **118** .. 3E3 .11
set screw ..... **116** .. 3E1 .10
BELT SHIFTER ARM group X3E4 2.13

BELT SHIFTER EYE (forked) a4E1 2.32

Note E47—Machines equipped with Display Type Attachment prior to machine 3338 (September, 1911) were equipped with the following part:
BELT SHIFTER OPERATING BAR 97E1 1.98
To apply the improved part see Improvement No. 23.

Note E48—Machines equipped with Display Type Attachment prior to machine 3338 (September, 1911) were equipped with the following parts:
BELT-SHIFTER-OPERATING-BAR CONNECTING ROD 98E1 1.00
cotter (2) ..... **96** .. 98E2 .00
washer (1) ..... **412** .. 98E3 .07
BELT-SHIFTER-OPERATING-BAR CONNECTING ROD group X98E 1.07
To apply the improved parts see Improvement No. 23.

Note E49—Machines equipped with Display Type Attachment prior to machine 3338 (September, 1911) were not equipped with Guide group X99E.
To apply the improved parts see Improvement No. 23.

Note E50—Machines equipped with Display Type Attachment prior to machine 3338 (September, 1911) were equipped with the following part:
BELT-SHIFTER RING a5E3 5.94
To apply the improved parts ee Improvement No. 23.

Note E51—Machines equipped with Display Type Attachment prior to machine 3338 (September, 1911) were equipped with the following parts:
CLUTCH CONTROL SHAFT ..... 101E1E *
bell crank ..... 101E2 *
" " dowel ..... **58** .. 101E3 ★.04
lever ..... 101E4 *
" dowel ..... **58** .. 101E5 ★.04
CLUTCH CONTROL SHAFT group X101E
*101E1E was assembled with 101E2 to 101E5 inclusive.
To apply the improved parts see Improvement No. 23.

Note E52—Machines equipped with Display Type Attachment prior to machine 3338 (September, 1911) were equipped with the following part:
CLUTCH SHIFTER
plate lever (for engaging a5E3) 105E7 1.98
To apply the improved part see Improvement No. 23.

Note E53—Machines equipped with Display Type Attachment prior to 4313 were equipped with the following parts:
SPEED BRACKET
oil hole cover screw (4) ..... 122E21 .05
and omitted Base a122E19.
The improved parts a122E19 and a122E21 can be applied to these machines if furnished together when ordered for the first time. They give better oiling facility.

Note E54—Machines equipped with Display Type Attachment prior to machines 3596 (except 3480, 3566 and 3594, which have the improved parts listed in Attachmnt 9CU) were equipped with the following part:
SPEED INDEX PLATE 132E1
This PLATE is obsolete; order instead the improved PLATE a132E1 on which the table of speeds has been revised; no other change is required when applying the improved PLATE.

Note E55—Machines equipped with Eighteen-point Attachment prior to machine 4415 were equipped with the following parts:

Locking-bar Bell Crank (lower)		c28EE	*
spring post	832	28E1	★.07
Locking-bar Bell Crank group		Xc28E	3.64

*c28EE is assembled with 28E1. Order by complete symbol Xc28E.

To apply the improved parts see Improvement No. 14.

Note E56—Machines equipped with Eighteen-point Attachment prior to machine 4415 were equipped with the following parts:

Locking-bar Bell Crank (upper)		c29EE	*
spring post	832	29E1	★.07
Locking-bar Bell Crank group		Xc29E	3.64

*c29EE is assembled with 29E1. Order by complete symbol Xc29E.

To apply the improved parts see Improvement No. 14.

Note E57—Machines equipped with Eighteen-point Attachment prior to machine A4154 (November, 1914) were equipped with the following parts:

Air Supply Bracket		155E1E	*
bell crank (large)		155E2	2.64
piston		155E16	.79

*155E1E was assembled with 155E19.

The improved parts a155E1E, a155E2 and a155E16 (see Main List) give more positive action. To apply them requires that they be furnished together when ordered for the first time for one of these machines.

Note E58—Machines equipped with Eighteen-point Attachment prior to machine 4658 (January, 1915) were equipped with the following parts:

Locking Piston		164E1	*
Locking-piston Cylinder		166E1	*

*These parts are obsolete; order instead the improved parts a164E1 and a166E1 (see Main List) which give more positive action. These improved parts must be ordered together when furnished for the first time for a machine not already equipped with them.

Note E59—The earlier Lead and Rule Mold Operating Attachments were equipped as follows:

Attachments for continuous strip Molds with Clamping Lever extending to the left were equipped with

Centering-pin-lever Bracket		134E1E	*
ball stud (2)		134E2	★.36
clamp		134E3	★.42
" stud (front)		134E4	★.10
" " (rear)		134E5	★.10
" " spring	6136	134E6	★.07
" " wing nut		134E7	★.30
eye bolt		134E8	★.48
" " dowel	7159	134E9	★.01
" " pin		134E10	★.02
" " washer		134E11	★.07
" " wing nut		134E12	★.30
Centering-pin-lever Bracket group		X134E	9.50

*134E1E is assembled with 134E2 to 134E12 inclusive.

Order by complete symbol X134E.

The above Bracket X134E cannot be used with any other type of continuous strip Mold than the early ones having the Clamping Lever extending toward the left from the Clamping Screw. The Bracket X134E is also used for Style LF (piece lead) Molds. Both of the above Molds can be used with the later type of Bracket as described below.

Attachments for continuous strip Molds with short Clamping Lever extending to the right from the Clamping Screw (the Clamping Screw on these Molds is in the center of the front abutment) were equipped with

Centering-pin-lever Bracket		a134E1E	*
ball stud		134E2	★.36
clamp		134E3	★.42
" stud (rear)		134E5	★.10
" " spring	6136	134E6	★.07
" " wing nut		134E7	★.30
eye bolt		a134E8	★.48
" " pin		a134E10	★.02
" " washer		134E11	★.07
" " wing nut		134E12	★.30
Centering-pin-lever Bracket group		Xa134E	8.00

*a134E1E is assembled with 134E2, 134E3, 134E5, 134E6, 134E7, a134E8, a134E10, 134E11 and 134E12. Order by complete symbol Xa134E.

The above Bracket Xa134E can also be used with earlier continuous strip Molds, having Clamping Lever extending to the left, if Ball Stud 134E2 is furnished and the Bracket is drilled for this Stud. It can also be used with Style LF (piece lead) Molds if two additional Ball Studs 134E2 are furnished and the Bracket is drilled for these Studs.

Note E59—continued

Attachments for continuous strip Molds with long Clamping Lever extending to the right from the Clamping Stud (the Clamping Stud on these Molds is about one inch to the right of the center) are equipped with Centering-pin-lever Bracket group Xb134E (see Attachment 11CU).

This Bracket Xb134E can be used with the earliest continuous strip Molds having Clamping Lever extending to the left from the Clamping Screw if Ball Stud 134E2 is furnished and the Bracket is drilled for this Stud. It can also be used with Style LF (piece lead) Molds if two additional Ball Studs 134E2 are furnished and the Bracket is drilled for them. It cannot be used with the intermediate continuous strip Molds having short Clamping Lever extending to the right from the Clamping Screw (and this Clamping Screw in the center of the Mold); these Molds require Centering-pin-lever Bracket Xa134E (see above).

Note E60—Lead and Rule Mold Operating Attachments prior to March, 1923, but later than as listed in the note below, were equipped with the following parts:

Clamping-screw Connecting Rod		a135E1	.18
spring	6209	a135E7	.24

and omitted a135E16 and a135E17.

The improved parts a135E1, a135E7, a135E16 and a135E17 provide means of adjusting the tension on the Spring b135E7, to regulate the pressure on the Mold Clamp Screw. These parts should be ordered together when ordered for the first time.

The earlier Lead and Rule Mold Attachments which did not have Molds with long Clamping Lever extending to the right from the Clamping Screw and the Clamping Screw about one inch to the right of the center were equipped as follows:

Clamping-screw Connecting Rod		135E1	.18
ball socket (long)		135E2	1.06
" " (short)		135E3	.66
" " lock nut	310	135E4	.07
nut	310	135E5	.07
" lock nut	312	135E6	.07
spring	656	135E7	.24
abutment		135E8	.10
Clamping-screw Connecting Rod group		X135E	2.45

Note E61—The earliest Lead and Rule Mold Operating Attachments were equipped with a Spring Box in line with the Mold-blade Operating Bar.

This older form of Spring Box is obsolete. If repair parts are required consult our Main office in Philadelphia.

To apply the improved parts see Improvement No. 24.

Note E62—Machines equipped with Speed Regulating Attachment prior to machine 3085 were equipped with the following part:

Clutch-shifter Spring	6107	106E1	.16

and omitted a106E2.

To apply the improved parts X106E requires that a new Post 122E31 be furnished and the Speed Bracket 122E1E is drilled for it.

Note E63—Machines equipped with Rule Mold Operating Attachment are equipped with the following part:

Centering-pin-cam-lever Shaft		a15E1	1.58

and omit 15E.

To apply this attachment see Attachment 11CU.

Note E64—Type-&-Rule Casters prior to 4049 (except 3966) were not equipped with Bell Crank group Xa87E.

To apply the improved parts see Improvement No. 27.

Note E65—Type-&-Rule Casters prior to 7143 (except 6953, 6963 to 6982 inclusive) were equipped with the following parts:

Main-stand-air-pipe Cover		94E1	1.75
screw (4)	223	94E2	.08
Main-stand-air-pipe Cover group		X94E	2.07

Note E66—Type-&-Rule Casters prior to 7591 were equipped with the following parts:

Starting-bar Lock Bracket		170E1	2.64
Starting-bar-lock-bracket Stud		171E1	.20

The improved parts a170E1 and a171E1 prevent the Stud from working loose. To apply them requires that they be furnished together when ordered for the first time.

Note E67—Type-&-Rule Casters prior to 7143 (except 6953, 6963 to 6982 inclusive) were equipped with parts of the 36E group the same as Composing Machines, which see.

Note E68—Automatic Cutters shipped prior to February, 1928, were not equipped with any parts of group X276E. These parts provide a guard in front of the Interlocking-lever Operating Rod a109E1. Order by the complete symbol X276E.

Section F

Note F1—Machines prior to 2299 were equipped with the following parts:

Galley-bar plate		13F1	*
" rivets (2)	7162	13F2	.03

*13F1 will no longer be furnished. The Galley Bar and Plate are now made in one piece and will be furnished instead of the Bar having the Plate riveted to it. See Main List.

Note F2—Machines 523 to 1664 inclusive (except 1661 and 1663, for which use Main List) were equipped with the following parts:

Galley Cam		a14FF	*
driving pawl fulcrum screw		14F3	.26
Galley Cam group (a14FF, 14F1F, 14F3 to 14F6 inclusive)		Xa14F	31.49

and omitted a14F9 and a14F10.

*a14FF is assembled with 14F7 and 14F8. Price assembled is.....29.04

To equip machines 103 to 1660 inclusive, 1662 and 1664 with b14FF requires that a14F3, a14F9 and a14F10 be also furnished. The improved parts a14F3, a14F9 and a14F10 may be applied to machines 103 to 1600 inclusive, 1662 and 1664 by enlarging the hole in the Cam14FF or a14FF to receive a14F3 with a driving fit.

Machines prior to 523 were equipped with the following parts:

Galley Cam		14FF	*
driving pawl fulcrum screw		14F3	.26
Galley Cam group (14FF, 14F1F, 14F3 to 14F6 inclusive)		X14F	31.49

and omitted a14F9 and a14F10.

*14FF is assembled with 14F7 and 14F8. Price.....29.04

To apply the improved parts see above note for machines 523 to 1664 and also Improvement No. 16.

Note F3—Machines prior to 4512 were not equipped with the following part:

Galley-cam Shaft worm wheel oil pan		a15F4	.66

To apply this Oil Pan a15F4 to these machines it is necessary to furnish the new Worm Wheel 15F3 and alter the Cam-shaft Stand a12EE.

Note F4—Machines prior to 4750 were equipped with the following parts:

Galley-pan Shelf			
adjusting bar clamp bolt	115	17F4	.10
set screw (2)	115	17F6	.10

and omitted a17F7.

The Wing Bolt a17F4 may be applied to these machines if the Washer a17F7 is also furuished. The Wing Bolt b17F6F may be applied to these machines without any other change.

Machines prior to 2404 were equipped with the following part:

Galley-pan Shelf adjusting bar (for Galley pan)		17F1	.13

The improved Bar a17F1 may be used on these machines if cut off to suit.

To apply the improved parts see Improvement No. 28.

Machines prior to 520 were equipped with the following part:

Galley-pan Shelf		17F	11.88
Galley-pan Shelf group (17F to 17F6 inclusive)		X17F	13.22

To apply the improved parts see Improvement No. 28.

Machines equipped with Automatic Cutter have in addition to the standard parts the following:

Galley-pan Shelf			
spring pin	834	a17F8	.07

To apply the improved parts see Attachment 12CU.

Note F5—Machines prior to 4750 were equipped with the followng parts:

Galley-pan Support			
bevel nut bolt (3)*	115	18F3	.10
set screw (2)	115	a18F7	.10

and omitted a18F8.

*The Type-&-Rule Caster has but two of these Bolts.

The Wing Bolt a18F3 may be applied to these machines if the Washer a18F8 be also furnished. The Wing Bolt c18F7F may be applied to these machines without any other change.

Machines prior to 520 were equipped with the following parts:

Galley-pan Support		18FF	*
bar (2)		18F1	★.92
Galley-pan Support group (18FF and 18F2 to 18F6 inclusive)		X18F	9.55

and omitted b18F7 and a18F8.

*18FF was assembled with 18F1. Price 7.92

To apply the improved parts see Improvement No. 28.

Note F6—Machines prior to 523 were equipped with the following parts:

Line-hook Operating Bar		21F	2.64
Line-hook Operating Bar group (21F, 21F1 and 21F2)		X21F	2.78

and omitted a21F3.

To apply the improved parts see Improvement No. 16.

Note F7—Machines prior to 523 were equipped with the following part:

LINE-HOOK-OPERATING-BAR STOP adjusting screw....255.. 22F1 .04

To apply the improved part see Improvement No. 16.

Note F8—Machines 1603 to 5292 inclusive were equipped with the following parts:

LINE-HOOK OPERATING SLIDE..... b23FF *
pin (for a21F)..... 23F7 ★.11
spring pin....851.. a23F11 ★.05

*b23FF is assembled with 23F7 and a23F11. Order by complete symbol Xb23F. Price is..... 4.01

To apply the improved parts see Improvement No. 28.

Machines 530 to 1602 inclusive were equipped with the following parts:

LINE-HOOK OPERATING SLIDE..... a23FF *
latch (for Line Support)..... a23F1 .66
" locking pin..... a23F2 .20
" " " spring....670.. a23F4 .07
" operating rod (hand)..... 23F5 .20
" " " pin..... 23F6 .07
" stud..... 23F8 .07
" washer..... 23F9 .07
pin (for a21F)..... 23F7 ★.11
LINE-HOOK OPERATING SLIDE group.....Xa23F 5.30

and omitted a23F11.

*a23FF is assembled with 23F7. Price 3.96

To apply the improved parts see Improvement No. 17.

Machines prior to 530 were equipped with the following parts:

LINE-HOOK OPERATING SLIDE..... 23FF *
latch (for Line Support)..... 23F1 .66
" locking pin..... 23F2 .20
" " " guide pin..... 23F3 .01
" " " spring....647.. 23F4 .07
" operating rod (hand)..... 23F5 .20
" " " pin..... 23F6 .07
" stud..... 23F8 .07
" washer..... 23F9 .07
pin (for 21F)..... 23F7 .*11
LINE-HOOK OPERATING SLIDE group.....X23F

and omitted a23F11.

*23FF is assembled with 23F7.

To apply the improved parts see Improvement No. 17.

Note F9—Machines 1603 to 5292 inclusive were equipped with the following parts:

LINE-HOOK-OPERATING-SLIDE LATCH.....
frame..... a53F1F *
" operating lever..... a53F2F †
" " " stud..... a53F3 †
" " " " cotter.....95.. a53F4 .00
" " " spring.....614.. a53F5 .07
" spring.....610.. a53F7 .07
" " pin..... a53F6 ★.05
LINE-HOOK-OPERATING-SLIDE LATCH group (a53F to a53F9 inclusive).....Xa53F 4.24

and omitted a53F12, a53F13 and a53F14.

*a53F1F is assembled with a 53F6. Price 2.64

†a53F2F is assembled with a53F3. Price .66

To apply the improved parts see Improvement No. 28.

Machines prior to 1603 were not equipped with any part of the 53F group.

To apply the improved parts see Improvements Nos. 17 and 28.

For machines prior to 5293 or prior to December, 1918, which were equipped by special order with the early form of Sixty Pica Attachment, see Note F35.

Note F10—Machines 1603 to 5292 inclusive were equipped with the following parts:

LINE-HOOK-OPERATING-SLIDE SPRING BOX... 27F 2.00
pin (in b23FF)..... a27F2 .13
LINE-HOOK-OPERATING-SLIDE SPRING BOX group (27F, 27F1, a27F2, 27F3 to 27F11 inclusive).....Xa27F 4.84

To apply the improved parts see Improvement No. 28.

Machines prior to 1603 were equipped with the following parts:

LINE-HOOK-OPERATING-SLIDE SPRING BOX... 27F 2.00
pin (in a23FF)..... 7F2 .16
LINE-HOOK-OPERATING-SLIDE SPRING BOX group (27F to 27F11 inclusive).....X27F 4.85

To apply the improved parts see Improvements Nos. 17 and 28.

Machines prior to 1603 or prior to December, 1918, which were equipped by special order with the early form of Sixty Pica Attachment, required a27F2. See Note F35.

Note F11—Machines prior to 4197 were equipped with the following parts:

LINE SUPPORT (thin, 5 1-2 point to 8 point inclusive)..... 29FF *
LINE SUPPORT group (29FF).....X29F 1.66

*29FF is assembled with 29F1 and 29F2. Order by complete symbol X29F.

Xa29F can be applied to these machines if Xa30F and a44FF are also furnished or if X30F and 44FF are altered.

Note F12—Machines prior to 4197 were equipped with the following parts:

LINE SUPPORT (thick, from 9 point to 12 point inclusive)..... 30FF *
LINE SUPPORT group (30FF).....X30F 1.66

*30FF is assembled with 30F1 and 30F2. Order by complete symbol X30F.

X30F can be applied to these machines if Xa29F and a44F are also furnished or if X29F and 44FF are altered.

Note F13—Machines prior to 5503 were equipped with the following part:

MAIN STAND GALLEY screw (7-16" x 1 1-8") is.....26.. 31F3 .12

and omitted a31F7.

To apply the improved part see Improvement No. 30.

Machines prior to 1823 (except 1813, 1814, 1816, 1818, 1820 and 1821, for which use Main List) were equipped with the following part:

MAIN GALLEY STAND..... 31F

STAND 31F is obsolete; order instead STAND a31F and at the same time order STUD Xa46F (see Main List).

To make STAND 31F conform to the improved STAND a31F, enlarge the hole to fit STUD a46F and order STUD group Xa46F (see Main List).

Note F14—Machines prior to 512 were equipped with the following parts:

OPERATING LEVER plate..... 32F1 ★.40
" rivet (2)..... 32F2 ★.03

The OPERATING LEVER a32F (see Main List) is now made without these parts and can be used on these machines.

Note F15—Machines prior to 5293 were equipped with the following parts:

OPERATING-LEVER LATCH..... 33F 3.96
bar (for 44F9F)..... 33F1 .73
" clamp..... 33F2 .40
" " screw (knurled)..... a33F3* .13
fulcrum screw (rear)..... 33F4 .13
" " (headless, front)..... 33F5 .07
" " lock nut.....314.. 33F6 .07
OPERATING LATCH group.....X33F 5.48

To apply the improved parts see Improvement No. 28.

*Machines prior to 4750 were equipped with SCREW 33F3 which is now obsolete; order instead a33F3 which is interchangeable with it.

Machines prior to 5293 or prior to December, 1918, which were equipped by special order with the early form of Sixty Pica Attachment, omitted X33F and used X57F. See Note F35.

Note F16—Machines equipped with Speed Regulating Attachment are equipped with the following parts:

OPERATING-LEVER SPRING BOX group.....X37F4 4.73

and omit X37F.

See Attachment 9CU.

Note F17—Machines prior to 5293 were equipped with the following parts:

STOP SLIDE
adjusting stand (for column width)..... 44F1 3.30
" " guide bar (for adjusting column width)..... 44F2 2.32
" " guide bar plate..... 44F5 1.66
" " " " rivet (2)..... 44F6 .01
lever..... 44F9F *
" bushing washer..... 44F13 .07
STOP SLIDE group (a44FF, 44F1, 44F2, 44F3, a44F4, 44F5 to 44F8 inclusive, 44F9F, a44F10, 44F11, 44F12 and 44F13).....Xa44F 16.45

and omitted a44F16 and a44F17.

*44F9F is assembled with 44F14. Price is..... 1.66

To apply the improved parts see Improvement No. 28.

Machines 4750 to 5292 inclusive were equipped with the following part:

STOP SLIDE lever wing bolt..... a44F10 .13

Machines prior to 4750 were equipped with the following parts:

STOP SLIDE
adjusting stand guide bar clamp bolt111.. 44F4 .11
lever bolt.....121.. 44F10 .08

The WING BOLT a44F4 can be applied to these machines if the GALLEY-PAN SHELF a17F be drilled. Directions for drilling will be sent upon request. The new BOLT a44F10 can be applied to these machines without any other change.

Machines prior to 4197 were equipped with the following part:

STOP SLIDE (for long and short lines)..... 44FF *

*This STOP SLIDE is obsolete; order instead the improved STOP SLIDE a44FF (see Main List) and alter the LINE SUPPORTS X29F and X30F.

Machines equipped with Eighteen-point Attachment are equipped with the following parts:

STOP SLIDE
adjusting stand guide bar plate..... a44F18 1.66
" " plate..... a44F19 1.98

and omit 44F5 and 44F7.

See Attachment 10CU.

Note F17—continued

Machines prior to 5293 or prior to December, 1918, which were equipped by special order with the early form of Sixty Pica Attachment, omitted Xa44F (except a44F4) and used X60F, X61F, X62F, X63F and X64F. See Note F35.

Note F18—Machines 4131 to 4536 inclusive were equipped with the following parts:

TRIP LEVER..... b45FF *
adjusting screw clamp screw..... 45F2 .07
TRIP LEVER group (b45FF, 45F1, 45F2, 45F9, 45F10 and a45F13).....Xb45F

and omitted a45F14 to a45F19 inclusive.

*b45FF was assembled with a45F3F, a45F4, 45F5 to 45F8 inclusive, and a45F11.

To apply the improved parts see Improvement No. 18.

Machines 2841 to 4130 inclusive were equipped with the following parts:

TRIP LEVER..... a45FF *
adjusting screw clamp screw.....233.. 45F2 .07
latch..... 45F3 ★.73
TRIP LEVER group (a45FF, 45F1, 45F2, 45F9 and 45F10).....Xa45F

and omitted a45F11 to a45F19 inclusive.

*a45FF was assembled with 45F3, a45F4 and 45F5 to 45F8 inclusive.

To apply the improved parts see Improvement No. 18.

Machines prior to 2841 were equipped with the following parts:

TRIP LEVER..... 45FF *
adjusting screw clamp screw.....233.. 45F2 .07
latch..... 45F3 ★.73
" guide pin.....837.. 45F4 ★.03
TRIP LEVER group (45FF, 45F1, 45F2, 45F9 and 45F10).....X45F

and omitted a45F11 to a45F19 inclusive.

*45FF was assembled with 45F3 to 45F8 inclusive.

To apply the improved parts see Improvement No. 18.

Note F19—Machines prior to 1823 (except 1813, 1814, 1816, 1818, 1820 and 1821, for which use Main List) were equipped with the following parts:

TRIP-LEVER FULCRUM SCREW..... 46F .79

and omitted a46F1 and a46F2.

To equip these machines with the improved parts Xa46F (see Main List) requires that these parts be furnished and that the hole in the MAIN GALLEY STAND 31F be opened out to receive the improved STUD a46F.

Note F20—Machines prior to 4750 were equipped with the following part:

TYPE CHANNEL BLOCK bolt..... 50F6

50F6 is obsolete; order instead a50F6 which is interchangeable with it.

Machines prior to 3093 were equipped with the following parts:

TYPE CHANNEL BLOCK
clamp..... 50F1F *
" latch..... 50F2 ★1.50
" " pin (3).....7116.. 50F3 ★.04
TYPE CHANNEL BLOCK group (50F1F, 50F6 and 50F7).....X50F

and omitted a50F13.

*50F1F was assembled with 50F, 50F2, 50F3, 50F4, a50F5, 50F8 to 50F10 inclusive.

Repair parts will be furnished for this BLOCK but for the complete BLOCK order from the Main List.

Machines prior to 2795 were equipped with the following parts:

TYPE CHANNEL BLOCK
type trimmer..... 50F11
" screw..... 50F12

These parts are obsolete and may be discarded without any other change.

Machines equipped with Display Type Attachment are equipped with the following part:

TYPE-CHANNEL-BLOCK CLAMP.....a50F14F 18.00

and omit a50F1F.

See Attachment 9CU.

Machines equipped with Style LF (Piece Lead) Mold Attachment are equipped with the following part:

TYPE-CHANNEL-BLOCK CLAMP.....a50F18F 16.90

and omit a50F1F.

See Attachment 13CU.

Note F21—Machines prior to 3093 were equipped with the following parts:

TYPE CHANNEL BLOCK (fixed)..... 51FF *
latch..... 51F3 ★1.75
" pin (2).....7158.. 51F4 ★.04
TYPE CHANNEL BLOCK group (51FF, 51F1, 51F2, 51F5 and 51F6).....X51F

and omitted a51F7, a51F8 and a51F9.

*51FF was assembled with 51F3 and 51F4.

Repair parts will be furnished for this BLOCK, but for the complete BLOCK order from the Main List.

Composing Machines equipped with Display Type Attachment are equipped with the following part:

TYPE CHANNEL BLOCK (fixed).....X51F10 3.75

and omit Xa51F.

See Attachment 9CU.

Note F21—continued

Machines equipped with Style LF (Piece Lead) Mold Attachment are equipped with the following part:

TYPE CHANNEL BLOCK (fixed) X51F18 8.00
and omit Xa51F.
See Attachment 13CU.

Note F22—The earlier Automatic Cutters were equipped with the following parts:

CHANNEL BAR 77F1
screw (2) ..... **227**.. 77F2 .08
and omitted a77F3 and a77F4.
The improved parts are to keep long strips of lead or rule from bending as they are being delivered from the MOLD. To apply these parts requires that the SUPPORT a77F3 and SCREWS a77F4 (see Attachment 12CU) be furnished and the CHANNEL BAR 77F1 altered to suit. After this alteration the CHANNEL BAR becomes a77F1.

Note F23—Automatic Cutters shipped prior to December 21, 1915, were equipped with the following part:

SHEAR-BLADE-SHOE-TUBE CLAMP 86F1
and omitted a86F3.
This one-piece CLAMP is obsolete; order instead CLAMP group X86F (see Attachment 12CU). No other change is required when these improved parts are applied.

Note F24—Automatic Cutters shipped prior to January 24, 1917, were equipped with the following parts:

SHEAR-CAM-LEVER SPRING ..... **6108**.. 114F1
plate (2) 114F2
These parts are obsolete. The improved parts a114F1 and a114F2 give improved spring action and must be furnished together, as SPRING group X114F, when ordered for the first time for one of these machines.

Note F25—Machines equipped with Speed Regulating Attachment prior to machine 3085 were equipped with the following parts:

OPERATING-LEVER SPRING BOX ..... a37F4F *
spring ..... **638**.. 37F3 .11
*These parts are obsolete for these machines; the improved SPRING BOX a37F4F can be applied without other change; the SPRING 37F3 will be supplied as a repair part; to apply the improved SPRING a37F6 requires that the superseded SPRING BOX a37F4F be altered or the improved SPRING BOX a37F4F be furnished.

Note F26—Type-&-Rule Casters prior to 3523 were equipped with the following parts:

TYPE CHANNEL BLOCK (fixed) (for display type) ..... a51F14F *
latch a51F15 *1.40
" pin ..... **7158**.. 51F4 *.04
screw (rear) ..... **231**.. a51F13 *.08
*a51F14F was assembled with 51F3, a51F13 and a51F15 and was the same as the complete BLOCK X51F14. This BLOCK is obsolete and only the parts for which prices are given will be furnished. For the complete BLOCK order from the TYPE-&-RULE CASTER List. The SCREW 51F5 furnished as part of BLOCK Xa51F is used also with this BLOCK.

Note F27—Type-&-Rule Casters prior to 4619, also 4648 to 4657 inclusive, were equipped with the following part:

TYPE-CHANNEL-BLOCK STAND 70F1
This STAND had the galley extending to the front and is now obsolete; the improved STAND with the galley extending to the right is required when the Automatic Cutter is applied.
To apply the improved part see Attachment 12CU.

Note F28—Machines prior to 5293 were equipped with the following part:

COLUMN PUSHER ..... 1FF *
and omitted a1F4, a1F5, a1F6 and a1F7.
*1FF is assembled with 1F1, 1F2 and 1F3. Order by complete symbol X1F. Price is 21.12
To apply the improved part see Improvement No. 28.

Note F29—Machines prior to 5293 were equipped with the following part:

LINE-HOOK-OPERATING-SLIDE SHOE 24F 2.90
To apply the improved part see Improvement No. 28.

Note F30—Machines prior to 5293 were equipped with the following part:

RULE ..... 39FF *
*39FF is assembled with 39F1, 39F2, 39F3, 39F8 and 39F9. Price 7.92
To apply the improved parts see Improvement No. 28.

Machines prior to 5293 or prior to December, 1918, which were equipped by special order with the early form of Sixty Pica Attachment, omitted 39FF and used a39F11F. See Note F35.

Note F31—Machines prior to 5293 were equipped with the following part:

RULE LEVER ..... 40FF *
*40FF is assembled with 40F1 to 40F5 inclusive. Order by complete symbol X40F. Price 7.26
To apply the improved part see Improvement No. 28.

Note F31—continued

Machines prior to 5293 or prior to December, 1918, which were equipped by special order with the early form of Sixty Pica Attachment, omitted 40FF and used X40F6. See Note F35.

Note F32—Machines prior to 5293 were equipped with the following parts:

TYPE CHANNEL PLATE 49F 6.60
screw (2) ..... **229**.. 49F1 .07
TYPE CHANNEL PLATE group X49F 6.74
and omit a49F2.

Machines prior to 5293 or prior to December, 1918, which were equipped by special order with the early form of Sixty Pica Attachment, omitted X49F and used X65F. See Note F35.

Note F33—Machines prior to 5293 were not equipped with any part of the 131F group.
To apply these improved parts see Improvement No. 28.

Note F34—Machines prior to 5293 were equipped with the following part:

OPERATING-LEVER-LATCH STAND ..... 36F .66
To apply the improved part see Improvement No. 28.

Note F35—Machines 2404 to 5292 supplied on special order only, with the early form of Sixty Pica Attachment (or so equipped, on special order outside our factory prior to December, 1918) were equipped with the following parts:
To apply the improved parts see Improvement No. 28.

LINE-HOOK-OPERATING-SLIDE LATCH
frame ..... a53F15F *
" lug ..... a53F10 *.34
" " rivet (2) ..... **7161**.. a53F11 *.01
" spring pin ..... a53F6 *.05
*a53F15F is assembled with a53F6, a53F10 and a53F11. Price 2.98

LINE-SUPPORT PUSHER ..... 54F1F *
guide ..... 54F2 *.34
" rivet (2) ..... **7116**.. 54F3 *.04
LINE-SUPPORT PUSHER group X54F 3.30
*54F1F is assembled with 54F2 and 54F3. Order by complete symbol X54F.

LINE-SUPPORT-PUSHER CATCH PLATE ..... 55F1 .34

LINE-SUPPORT-PUSHER RESTORING LATCH
(on b23F) 56F1 2.64
spring ..... **6121**.. 56F2 .07
support stud (in b23F) ..... 56F3 .07
LINE-SUPPORT-PUSHER RESTORING LATCH group X56F 2.78

OPERATING-LEVER LATCH 57F1 5.94
stand ..... 57F2 .53
" screw (2) ..... **215**.. 57F3 .10
OPERATING-LEVER LATCH group X57F 6.67

RULE ..... a39FF *
guide pin ..... 39F1 *.16
" " rivet (2) ..... **725**.. 39F2 *.01
lifting rod ..... 39F3 *.66
" " support ..... 39F8 *
" " " rivet ..... **7163**.. 39F9 *.01
*a39FF is assembled with 39F1, 39F2, 39F3, 39F8 and 39F9. Price assembled .. 10.56

RULE LEVER ..... a40FF *
cam roller ..... 40F1 *.45
" " oil pipe ..... 40F2 *.07
" pin ..... 40F3 *.40
" " nut ..... **319**.. 40F4 *.08
" " washer ..... **46**.. 40F5 *.07
RULE LEVER group Xa40F 9.25
*a40FF is assembled with 40F1 to 40F5 inclusive. Order by complete symbol Xa40F.

STOP SLIDE 60F1 4.62
adjusting stand 60F2 4.62
" " clamp ..... 60F3 .66
" " " bolt ..... **130**.. 60F4 .10
" " shoe 60F5 2.64
" " " screw (2) ..... **234**.. 60F6 .07
STOP SLIDE group X60F 12.78

STOP-SLIDE ROCK SHAFT (left) ..... 61F1F *
arm (engaged by 60F1) ..... 61F2 *
" dowel ..... **529**.. 61F3 *.04
gear segment 61F4 2.64
STOP-SLIDE ROCK SHAFT group X61F 4.30
*61F1F is assembled with 61F2 and 61F3. Price assembled 1.66

STOP-SLIDE ROCK SHAFT (right) ..... 62F1F *
arm 62F2 1.66
" adjusting screw ..... **2186**.. 62F3 .05
" " " lock nut ..... **35**.. 62F4 .05
gear segment ..... 62F5 *
" " dowel ..... **529**.. 62F6 *.04
STOP-SLIDE ROCK SHAFT group X62F 5.06
*62F1F is assembled with 62F5 and 62F6. Price assembled 3.30

STOP-SLIDE-ROCK-SHAFT STAND (left) 63F1 4.62
clamp (top for 63F1) ..... 63F2 .66
" bolt ..... **130**.. 63F3 .10
pin (Key for 61F4) ..... **7175**.. 63F4 .04
STOP-SLIDE-ROCK-SHAFT STAND group X63F 5.42

STOP-SLIDE-ROCK-SHAFT STAND (right) 64F1 9.24
clamp ..... 64F2 .66
pin (for 62F2) ..... 64F3 .13
STOP-SLIDE-ROCK-SHAFT STAND group X64F 10.03

Note F35—continued

TYPE CHANNEL PLATE 65F1 9.24
bolt (from a31F) ..... 65F2 .20
TYPE CHANNEL PLATE group X65F 9.44

WEIGHT 66F1 4.00
plug ..... 66F2 .53
rod ..... 66F3F *
" washer ..... 66F4 *.07
spring (inner) ..... **6147**.. 66F5 .20
" (outer) ..... **6146**.. 66F6 .26
tube ..... 66F7F †
" bushing ..... 66F8 *.10
" cap ..... 66F9 .60
WEIGHT group X66F 6.69
*66F3F is assembled with 66F4. Price .. .50
†66F7F is assembled with 66F8. Price .. .60

WEIGHT BRACKET 67F1 13.20
screw (2) ..... **222**.. 67F2 .08
sheave (2) ..... 67F3 .66
" stud (2) ..... 67F4 .13
" " nut ..... **35**.. 67F5 .05
WEIGHT BRACKET group X67F 14.99

WEIGHT CORD ..... 68F1 .13
In addition to the above, one twenty-pica gage piece was furnished for use with the regular pica gages for setting measures from forty-two to sixty picas.

Machines 2313 to 2403 inclusive, if supplied with the early form of Sixty Pica Attachment, were equipped, in addition to the above, with the following parts:

GALLEY-PAN SHELF
adjusting bar ..... a17F1 .13

GALLEY-PAN SUPPORT a18F 6.60

Machines 1603 to 2312 inclusive, if supplied with the early form of Sixty Pica Attachment, were equipped, in addition to the above, with the following parts:

GALLEY-PAN SHELF a17F 11.88

Machines 520 to 1602 inclusive, if supplied with the early form of Sixty Pica Attachment, were equipped, in addition to the above, with the following parts:

LINE-HOOK-OPERATING SLIDE group Xb23F 4.01

LINE-HOOK-OPERATING-SLIDE SPRING BOX
pin ..... a27F2 .13

LINE-HOOK-OPERATING-SLIDE LATCH ..... a53F .66
frame operating lever ..... a53F2F *
" " " stud ..... a53F3 *
" " " " cotter ..... **95**.. a53F4 .00
" " " spring ..... **614**.. a53F5 .07
" spring ..... **610**.. a53F7 .07
spring ..... **6111**.. a53F9 .07
stud (in Latch Frame) ..... a53F8 .07
*a53F2F is assembled with a53F3. Price .66

Machines prior to 520, if supplied with the early form of Sixty Pica Attachment, were equipped, in addition to the above, with the following parts:

GALLEY-PAN SUPPORT
bar (2) ..... a18F1 .92
" wing bolt (2) ..... b18F7 *
*b18F7 is obsolete and will no longer be furnished; order instead c18F7F. Price .. .25

Note F36—Machines prior to 5383, equipped with the Automatic Cutter, were equipped with the following parts:

SHEAR-CAM-LEVER-FULCRUM-PIN BRACKET .. 113F1 4.80
screw (2) ..... **28**.. 113F2 .11
" nut (2) ..... **319**.. 113F3 .08
SHEAR-CAM-LEVER-FULCRUM-PIN BRACKET group X113F 5.18

Note F37—Machines prior to 5533 were equipped with the following part:

COLUMN-PUSHER FULCRUM SCREW (long) 4F
This part is now obsolete. Order a4F3, a longer SCREW designed to facilitate the application of the Automatic Cutter, Attachment 12CU.

Note F38—Machines equipped with Eighteen-point Attachment prior to Machine No. 5293 were equipped with the following parts:

LINE-HOOK-OPERATING-SLIDE SHOE a24F2 2.90
screw (5) ..... **223**.. 24F1 .08
LINE-HOOK-OPERATING-SLIDE SHOE group X24F2 3.30

Note F39—Automatic Cutters shipped prior to March, 1924, were equipped with the following parts:

TRANSFER BAR (rear) 96F1 4.20
TRANSFER BAR (front) 97F1 4.20
pusher (3) ..... 97F2 .18
" screw (6) ..... **241**.. 97F3 .05

Note F40—Automatic Cutters shipped prior to February, 1923, were equipped with the following parts:

SHEAR-BLADE-SHOE-TUBE GUIDE
screw (2) ..... **242**.. 87F2 .05
and omitted group X175F.
The improved parts provide a friction brake against the movement of the SHEAR-BLADE-SHOE TUBE and should be ordered together when ordered for the first time.

Note F41—Automatic Cutters shipped prior to February, 1923, were equipped with the following parts:

SHEAR GAGE 88F1F 6.00
spring ..... **6200** .. 89F1 .10
and omitted a88F5 and a88F6.

The improved parts 88F1F, a88F5, a88F6 and a89F1 provide a finer adjustment of the SHEAR GAGE and should be ordered together when ordered for the first time.

Note F42—Automatic Cutters shipped prior to January, 1924, were not equipped with Stacker Guard 176F1. This part operates to prevent overthrow of the Transfer Bars when stacking material. Order by the symbol 176F1.

Note F43—Automatic Cutters shipped prior to March, 1924, were equipped with the following part:

TRANSFER-BAR OPERATING LEVER 101F1 1.20
and omitted a101F2 to a101F6 inclusive.

The improved parts provide an adjustment on the TRANSFER-BAR OPERATING LEVER. Order by the complete symbol Xa101F when ordering fort he first time.

Note F44—Early Attachments 20CU were equipped with the following part:

CENTERING-PIN LOADING LEVER plunger 275E3
and omitted a275E8 and 275E9.

The three parts a275E3, a275E8, and a275E9 must be ordered together when ordered for the first time.

Section G

Note G1—Machines prior to 683:

When ordering a4G7, a4G8 or a4G9 for the first time for one of these machines, all three of these parts and also the ROD 4G must be ordered together.

To apply the improved parts see Improvement No. 15.

Note G2—Machines prior to 1103 were equipped with the following parts:

AIR-BAR SHAFT
headless screw ..... **256** .. 5G2
" " nut lock nut ..... **37** .. 5G4

These parts are obsolete; order instead the SCREW, from the Main List, and discard the LOCK NUT 5G4.

Note G3—Machines 4453 to 4730 inclusive were equipped with the following parts:

PAPER-FEED SPRING BOX
connection (upper) a17G1 1.00
tube 17G9 1.52
and omitted a17G12.

To apply the improved parts (see Main List) to these machines furnish a17G12 and alter a17G1 and 17G9.

See Improvement No. 15.

Machines prior to 4453 were equipped with the following parts:

PAPER-FEED SPRING BOX
connection (upper) ..... 17G1G *
pin ..... 17G2 *.16
" cotter ..... **95** .. 17G3 .00
" washer ..... **420** .. 17G4 .04
spring ..... **637** .. 17G5 .13
" rod 17G6 1.32
" " nut ..... 17G7 .07
" " washer (2) ..... 17G8 .07
tube 17G9 1.52
PAPER-FEED SPRING BOX group X17G 4.35
and omitted a17G12.
*17G1G is assembled with 17G2. Price 1.13

To apply the improved parts see Improvement No. 15.

Note G4—Machines prior to 4453 were equipped with the following parts:

PAPER-TOWER LEVER 19G 1.32
stud (for 4G) ..... 19G1 .20
" (for X17G and 54E) ..... 19G3 .20
PAPER-TOWER LEVER group (19G to 19G4 inclusive) X19G 1.84

To apply the improved parts see Improvement No. 15.

Note G5—Machines 2793 to 6615 inclusive were equipped with the following parts:

PIN WHEEL (rear) ..... b20GG *
*This part is obsolete. Order instead d20GG (see Main List). Machines prior to 6616 were equipped with the following parts:
PIN WHEEL (front) ..... 20G1 *
*This part is obsolete. Order instead d20GG (see Main List). Machines 2413 to 6615 inclusive were equipped with the following parts:
PIN WHEEL pin (48) 20G2

Machines 2413 to 2792 inclusive (except 2780, for which use Main List) were equipped with the following parts:

PIN WHEEL (rear) ..... a20GG *
shaft ..... 20G3 *
*a20GG was assembled with 20G1 to 20G4 inclusive.

These parts are obsolete; order instead Xa20G (see Main List) which is interchangeable with a20GG.

Note G5—continued

Machines prior to 2413 were equipped with the following parts:

PIN WHEEL (rear) ..... 20GG *
pin (96) ..... 20G2 *.01
shaft ..... 20G3 *
PIN WHEEL group (20GG) X20G 19.14
*20GG is assembled with 20G1 to 20G4 inclusive.

These parts are required only if paper ribbon with round marginal perforations on both edges is used. For use with our standard elongated hole paper ribbon order Xa20G (see Main List) and cut clearance in AIR BAR 2GG for elongated teeth on b20GG.

Note G6—Machines prior to 4348 were equipped with the following parts:

WINDING-SPOOL DRIVING DISC ..... 22GG *
shaft ..... 22G1 *
WINDING-SPOOL DRIVING DISC group (22GG and 22G2) X22G
*22GG was assembled with 22G1.

The DISC and SHAFT are now one piece, called WINDING-SPOOL DRIVING SHAFT 22G1. This new SHAFT 22G1 is interchangeable with the superseded DISC 22GG and must be furnished when that DISC is desired; order from Main List.

Section H

Note H1—Machines prior to 507 were equipped with the following parts:

AIR COCK (for air supply, 1-8") ..... 2H .79
AIR COCK group (2H and 2H1) X2H 1.58

To apply the improved part see Improvement No. 20.

Note H2—Machines prior to 507 were equipped with the following parts:

AIR PIPE (copper, .190" x 2") ..... 1H .13
(copper, .190" x 28 1-4") ..... 1H1 .79
(iron 1-8" x 1") (2) ..... 1H2 .07
(" 1-8" x 2") (2) ..... 1H3 .11
(" 1-8" x 7 3-4") ..... 1H4 .20
(" 1-8" x 16 1-8") ..... 1H5 .26
plug (1-8") ..... 1H10 .05
AIR PIPE group (1H to 1H12 inclusive) X1H 2.91
and omitted a1H13, a1H14 and a1H15.

To apply the improved parts see Improvement No. 20.

Note H3—Machines prior to 507 were equipped with the following parts:

AIR-PIPE CLAMP (2) ..... 3H .24
screw (2) ..... 3H1 .08
AIR-PIPE CLAMP group, each ..... X3H .32
These parts have been discarded.

To apply the improved parts see Improvement No. 20.

Note H4—Machines 2123 to 5354 inclusive equipped with the 2-burner Gas Burner were equipped with the following parts:

GAS BURNER (2) a4H 1.66
screen (2) ..... a4H1 .25
" holder (2) ..... a4H2 .60
" collar (2) ..... a4H3 .26
GAS BURNER group (2) each) Xa4H 2.77

To apply the improved parts see Improvement No. 29.

Machines prior to 2123 were equipped with the following parts:

GAS BURNER (for 12H) (2) 4H
cone (2) ..... 4H1 .66
and omitted a4H2 and a4H3.

The CONES 4H1 will be furnishedas a repair part but the BURNERS 4H will no longer be furnished. The improved parts give better combustion; to apply them requires that the two GAS BURNERS Xa4H and GAS NIPPLES b8H (see Main List) be furnished together when ordered for the first time for these machines. Also for machines prior to 503 the holes in the STAND 6H must be enlarged to take the NIPPLES b8H.

Note H5—Machines prior to 507 were equipped with the following parts:

GAS BURNER (for light in Base) (1-8") ..... 5H .20
tip ..... 5H1 .26
GAS BURNER group ..... X5H .46
These parts have been discarded.

To apply the improved parts see Improvement No. 20.

Note H6—Machines prior to 5355 equipped with the 2-burner Gas Burner were equipped with the following parts:

GAS-BURNER STAND (2-burner) a6H 3.30
bolt ..... 6H1 .26
" nut ..... **327** .. 6H2 .11
set screw (for b8H) (2) ..... **122** .. 6H3 .08
GAS-BURNER STAND group Xa6H 3.83

Machines prior to 503:

When ordering the STAND a6H for the first time for these machines order also the two NIPPLES b8H, and see Note H8.

Note H7—Machines prior to 5068 were equipped with the following part:

GAS COCK nipple (1-4", close) ..... a7H1 .07
This has been discarded.

To apply the improved part see Improvement No. 20.

Machines prior to 507 were equipped with the following parts:

GAS COCK (1-4" x 3-8") ..... 7H .53
nipple (1-4", close) ..... a7H1 .07

To apply the improved parts see Improvement No. 20.

NoteH8—Machines prior to 5355 equipped with the 2-burner Gas Burner to use natural gas were equipped with the following parts:

GAS NIPPLE (2) ..... a8H1H *
nozzle (2) ..... a8H2 *.10
GAS NIPPLE group (2) (each) ..... X8H1 .44
and omit b8H.

Machines 2123 to 5354 inclusive equipped with the 2-burner Gas Burner were equipped with the following part:

GAS NIPPLE (in a6H) (2) (each) ..... b8H .34

Machines prior to 2123 equipped with the 2-burner Gas Burner were equipped with the following part:

GAS NIPPLE (in a6H) (2) ..... a8H .34

a8H is obsolete and will no longer be furnished. The improved NIPPLE b8H may be used on these machines if the outlet hole in it is enlarged to 7-64", and if on machines prior to 503 the holes in the STAND 6H be enlarged to take these NIPPLES b8H. The complete improved parts give better combustion; to apply them requires that the two GAS BURNERS Xa4H and GAS NIPPLES b8H (see Main List) be furnished together when ordered for the first time for these machines. Also for machines prior to 503 the holes in the STAND 6H must be enlarged to take the NIPPLES b8H.

Note H9—Machines 507 to 5067 inclusive were equipped with the following parts:

GAS PIPE
(iron, 1-4" x 1 3-8") (2) ..... 9H .07
(" 1-4" x 3 3-4") ..... a9H1 .12
(" 1-4" x 18 5-8") ..... a9H2 .34
GAS PIPE group (9H, a9H1, a9H2, 9H5, 9H7, a9H8, a9H9) Xa9H 1.27
and omitted 9H3, 9H4, 9H6 and a9H11.

To apply the improved parts see Improvement No. 20.

Machines prior to 507 were equipped with the following parts:

GAS PIPE
(iron, 1-4" x 1 3-8") ..... 9H .07
(" 1-4" x 8 1-8") ..... 9H1 .20
(" 1-4" x 9 3-4") ..... 9H2 .20
(" 1-4" x 1 1-2") ..... 9H3 .07
(" 1-8" x 1") ..... 9H4 .07
elbow (1-4") (3) ..... 9H5 .07
" (1-4" with 1-8" side outlet) ..... 9H6 .26
GAS PIPE group (9H to 9H7 inclusive) X9H 1.28
and omitted a9H8, a9H9 and a9H11.

To apply the improved parts see Improvement No. 20.

Note H10—Machines 4636 to 4647 inclusive, and 4658 to 8920 inclusive (except 8853 to 8864 inclusive, for which use Main List) were equipped with the following parts:

MELTING POT 12H 6.60
casing (inside) ..... b12H1H *
" (outside) ..... 12H2 *
" plate (large) ..... 12H3H †
" " screw (8) ..... **223** .. 12H4 *.08
" " (small) ..... 12H5 †
" " screw (3) ..... **222** .. 12H6 *.08
" screw (right) ..... 12H8 *.16
" stud (2) ..... a12H9 *.11
" " nut (2) ..... **310** .. a12H10 *.07
" " washer (2) ..... **410** .. a12H11 *.07
MELTING POT group (with Magnesia Packing Xb12H
*b12H1H is assembled with 12H, 12H2, 12H3H, 12H4, 12H6, 12H8, a12H9, a12H10 and a12H11. This part is obsolete and will no longer be furnished.
Order instead the improved part Xc12H.
†12H3H is assembled with 12H5. Price 2.79

Machines 579 and 663 to 4657 (except 4636 to 4647 inclusive, for which see above were equipped with the following part:

MELTING POT casing (inside) ..... a12H1H *
*a12H1H is assembled with 12H, 12H2 to 12H6 inclusive, 12H8, a12H9, a12H10 and a12H11, and packed with magnesia packing. Order by complete symbol Xa12H.
Price 42.58

To apply the improved parts see Improvement No. 19.

Machines prior to 663 (except 579, for which see above) were equipped with the following parts:

MELTING POT
casing (inside) ..... 12H1H *
" screw (left) (2) ..... 12H7 *.07
and omitted a12H9, a12H10 and a12H11.
*12H1H is assembled with 12H and 12H2 to 12H8 inclusive.

12H1H will no longer be furnished; order instead Xa12H or Xb12H which require a few additional changes as described in Improvement No. 19.

To apply the improved parts see Improvement No. 19.

Note H11—Machines 508 to 5132 were equipped with the following part:

PIPE BRACKET ..... a16H *
and omitted a16H5.
*This BRACKET is obsolete; order instead BRACKET b16HH (see Main List) which is interchangeable with it. The improved BRACKET has the PLUG a16H5 to permit the cleaning of the waterways.

Note H11—continued

Machines prior to 507 were equipped with the following parts:

Pipe Bracket		16H	
screw (2)	222	16H1	.08
washer (2)	413	16H2	.07
Pipe Bracket group		X16H	

and omitted a16H3 and a16H4.

To apply the improved parts see Improvement No. 20.

Note H12—Machines prior to 4249 were equipped with the following parts:

Piston Lever		18H	
bearing (front)	845	18H1	1.32
" (rear)	846	18H2	1.32
" screw (2)	844	18H3	.07
Piston Lever group		X18H	

The Lever 18H alone or complete as X18H will no longer be furnished. The improved Piston Lever Xa18H (see Main List), is interchangeable with this superseded Lever X18H. To apply any of the improved parts for the first time to these machines requires that the improved Lever Xa18H (see Main List) be furnished complete.

Note H13—Machines prior to 4910 not equipped with Display Type Attachment were equipped with the following part:

Piston Operating Rod crosshead (upper for 18H)		19H3	

This superseded Crosshead is obsolete and will no longer be supplied. To apply the improved Crosshead a19H3 (which is the same as 26S formerly furnished with Display Type Attachments) requires that the new Eyes a20H2 and a31H3 and the Washer a20H6 be ordered at the same time if not already on the machine. The object of the improved parts is to use the same parts on both regular and display machines.

Note H14—Machines prior to 4493 were equipped with the following parts:

Piston Spring rod eye		20H2	

and omitted a20H6.

This superseded Eye is obsolete and will no longer be supplied. The improved parts a20H2 and a20H6 (see Main List) if furnished together are interchangeable with Eye 20H2; or for machines equipped with Display Type Attachment they are interchangeable with Eye a 20H (which is the same as 27S). The object of the improved parts is to use the same parts on both regular and display machines.

Note H15—Machines prior to 4249 were equipped with the following parts:

Pump-body Lever		24H	
bearing (front)	845	24H1	1.32
" (rear)	846	24H2	1.32
" screw (2)	844	24H3	.07
Pump-body Lever group		X24H	8.72

The Lever 24H alone or complete as X24H will no longer be furnished. The improved Pump-body Lever Xa24H (see Main List) is interchangeable with this superseded Lever X24H. To apply any of the improved parts for the first time to these machines requires that the improved Lever Xa24H (see Main List) be furnished complete.

Note H16—Machines prior to 1123 were equipped with the following part:

Pump-body Lifting Lever (Nozzle end)		26H	

and omitted a26H3 and a26H4.

26H is obsolete; order instead a26HH (see Main List) which is interchangeable with it.

Note H17—Machines prior to 1593 (not equipped with Display Type Attachment) were equipped with the following parts:

Pump-body Lifting Spring	648	27H	
plate (2)		27H1	.04

and omitted a27H2.

The Spring 27H and the lower one of the two Plates 27H1 are obsolete; order instead a27H and a27H2 (see Main List). When a 27H is ordered for the first time for one of these machines order alos a27H2; if a27H2 is ordered alone, cut two coils off the bottom of the Spring 27H to make it the correct length.

All machines equipped with Display Type Attachment have the improved parts.

Note H18—Machines prior to 913 were equipped with the following parts:

Pump-body Operating Rod		28H	
distance sleeve		28H1	
extension (for 27H1)		28H2	
washer	48	28H6	.07
Pump-body Operating Rod group (28H to 28H6 inclusive)		X28H	

These parts are obsolete. The improved parts a28H and a28H2 are interchangeable with the superseded parts 28H and 28H2 if furnished together and 28H1 and 28H6 discarded. To equip the above machines with a28H2 cut off the lower end of 28H to make its total length 5 5-8″ and discard 28H1 and 28H6.

Note H19—Machines prior to 4533 (not equipped with the Display Type Attachment) were equipped with the following part:

Pump-body Spring rod crosshead eye		31H3	

This superseded Eye is obsolete and will no longer be supplied. The improved Eye a31H3 is the same as that supplied as part of the Display Type Attachmentt and can be applied to any machine whether standard or equipped with the Display Type Attachment without any other change.

Note H19—continued

Machines prior to 4248 were equipped with the following parts:

Pump-body Spring rod sleeve		31H11	.66
Pump-body Spring group (31H to 31H11 inclusive, and 31H13)		X31H	11.36

To apply the improved Sleeve a31H11 requires that the Swing-frame Post a38H be furnished also. This improvement is for ease in assembling.

Machines prior to 1823:

These machines had a Washer 31H12 which is obsolete and may be discarded without other change.

Note H20—Machines prior to 1125 were equipped with the following parts:

Pump Rocker Arm		33H	
plunger		33H4	.34
" cotter	95	33H5	.00
" spring	619	33H6	.13
Pump Rocker Arm group (33H to 33H7 inclusive)		X33H	

and omitted a33H8.

To apply the improved parts a33H, a33H4, a33H6 and a33H8 (see Main List) requires that they be furnished together and 33H5 be discarded. The improved parts reduce wear and eliminate breakage.

Note H21—Machines prior to 5503 were equipped with the following parts:

Pump Trip			
spring box		35H6	1.32
" " handle		35H7	.47

and omitted a35H12.

To apply the improved part see Improvement No. 30.

Machines prior to 1603 were equipped with the following part:

Pump Trip rod plate screw (2)	241	35H5	

Thsee Screws have been superseded by Rivets a35H5 (see Main List). To apply these Rivets requires that the screw holes in the Rod be enlarged to receive them.

Machines 1123 to 1602 inclusive, were equipped with the following part:

Pump Trip rod		a35H1	

This part is obsolete; order instead b35H1H (see Main List) which is interchangeable with a35H1 on these machines.

Machines 535 to 1122 inclusive were equipped with the following parts:

Pump Trip rod		35H1	
" cotter	95	a35H10	.00

and omitted a35H11.

The Cotter will be supplied as a repair part but the Rod 35H1 is obsolete; order instead Rod b35H1H and at the same time order Nut b35H10 and Washer a35H11 (see Main List).

Machines prior to 535 were equipped with the following part:

Pump Trip rod		35H1	

and omitted b35H10 and a35H11.

This part is obsolete; order instead Rod b35H1H and at the same time order Nut b35H10 and Washer a35H11 (see Main List).

Note H22—Machines prior to 503 were equipped with the following parts:

Pump-trip Catch Plate (on 31F)		36H	.13
screw (2)	232	36H1	.07
Pump-trip Catch Plate group		X36H	.27

These parts were discarded on machines 503 and following.

Note H23—Machines 4636 to 4647 inclusive and 4658 to 7935 inclusive were equipped with the following part:

Swing Frame		a37H	59.40

To apply the improved parts see Improvement No. 31.

Machines prior to 7936 were equipped with the following part:

Swing Frame spring post	831	37H6	.07

and omitted a37H11 to a37H16 inclusive.

To apply the improved parts see Improvement No. 31.

Machines prior to 4658 (except 4636 to 4647 inclusive, for which see above were equipped with the following part:

Swing Frame (for 12H)		37H	59.40

and omitted a37H9 and a37H10.

To apply the improved parts see Improvement No. 19.

Machines 579 and 663 to 4657 inclusive (except 4636 to 4647 inclusive, for which use Main List) were equipped with the following parts:

Swing Frame			
adjusting screw (long) (2)	256	a37H7	.04
" " (short) (2)	257	a37H8	.04

and omitted a37H9 and a37H10.

To apply the improved parts see Improvement No. 19.

Note H24—Machines 4248 to 7935 inclusive were equipped with the following part:

Swing-frame Post		a38H	66.00

To apply the improved parts see Improvement. No 31.

Machines prior to 7936 were equipped with the following part:

Swing-frame Post clamp bolt	17	38H2	.13

To apply the improved parts see Improvement No. 31.

Machines prior to 4544 were equipped with the following part:

Swing-frame Post Guide Pin		38H3	.16

This Pin 38H3 is discarded when the improved Post a38H, having a lug cast on it in place of Pin 38H3, is applied.

Machines prior to 4248 were equipped with the following part:

Swing-frame Post		38H	

This Post 38H is obsolete; to apply the improved Post a38H requires that the Sleeve a31H11 (see Main List) be furnished also.

Note H25—Machines 4519 to 4528 inclusive, and 4573 to 10054 inclusive were equipped with the following parts:

Water Escape Valve		a42H9	*
body		a42H8H	*
handle		a42H10	.13
" rivet		a42H11	.03
spring	6185	a42H12	.13
" abutment		a42H13	.11
" " lock nut	392	a42H14	.08
Water Escape Valve group		Xa42H	

*a42H8H was assembled with a42H9 to a42H14 inclusive.

This part is obsolete and will no longer be furnished. Order instead the improved part Xb42H (see Main List) which is interchangeable with it.

Machines prior to 4573 (except 4519 to 4528 inclusive, for which see above) were equipped with the following parts:

Water Escape Valve		42HH	*
body		42H1	*
gland		42H2	*
" packing (rubber)		42H3	*
" " ring		42H4	*
(regulating)		42H5	*
handle		42H6	*
" rivet	7139	42H7	*
Water Escape Valve group		X42H	

and omitted a42H8 to a42H14 inclusive.

*42HH was assembled with 42H1 to 42H7 inclusive.

This Valve X42H is obsolete; order instead the improved Valve Xb42H (see Main List) which is interchangeable with it.

Note H26—Machines prior to 507 were equipped with the following parts:

Water Pipe			
(copper, drain from 36EE, 5-16″ x 2″)		43H	.20
(" " " " 5-16″ x 31 1-8″)		43H1	1.26
union (5-16″) (1)		43H2	.11
Water Pipe group (43H, 43H1 and 43H2)		X43H	1.57

and omitted a43H3.

To apply the improved parts see Improvement No. 20.

Note H27—Machines prior to 507 were equipped with the following parts:

Water Pipe (copper, drain from Mold, .190″ x 35″)		44H1	.92
union (.190″) (1)		44H2	.05
Water Pipe group (44H, 44H1, and 44H2)		X44H	1.10

and omitted a44H3.

To apply the improved parts see Improvement No. 20.

Note H28—Machines prior to 507 were equipped with the following parts:

Water Pipe (copper, supply, 5-16″ x 16 13-16″)		45H1	.73
union (5-16″) (1)		45H2	.11
Water Pipe group (45H, 45H1 and 45H2)		X45H	1.04

and omitted a45H3 to a45H10 inclusive.

To apply the improved parts see Improvement No. 20.

Note H29—Machines prior to 507 were equipped with the following parts:

Water-pipe Clamp		46H	.20
screw	222	46H1	.08
Water-pipe Clamp group (46H and 46H1)		X46H	.28

and omitted a46H2 to a46H6 inclusive.

To apply the improved parts see Improvement No. 20.

Note H30—Machines 4638 to 10054 inclusive were equipped with the following parts:

Water Supply Valve (2)		a48H12	*
body		a48H11	*
handle (2)		a48H13	*.13
" rivet (2)		a48H14	*.03
spring (2)	6185	a48H15	*.13
" abutment (2)		a48H16	*.11
" " lock nut (2)	392	a48H17	*.08
Water Supply Valve group		Xa48H	

*a48H11H was assembled with a48H12 to a48H17 inclusive.

This part is obsolete and will no longer be furnished. Order instead the improved part Xb48H (see Main List) which is interchangeable with it.

Note H30—continued

Machines prior to 4638 were equipped with the following parts:

Water Supply Valve body		48H1H	*
gland (2)		48H2	*
" packing (rubber) (2)		48H3	*
" " ring (2)		48H4	*
(regulating)		48H5	*
" handle		48H6	*
" " rivet		48H7	*
(shut off)		48H8	*
" " handle		48H9	*
" " " rivet	7139	48H10	*
Water Supply Valve group		X48H	

and omitted a48H11 to a48H17 inclusive.

*48H1H was assembled with 48H2 to 48H10 inclusive.

This Valve X48H is obsolete; order instead the improved Valve Xb48H (see Main List) which is interchangeable with it.

Note H31—Machines prior to 5068 were not equipped with Gas-cock Operating Handle X56H.

To apply these parts see Improvement No. 20.

Note H32—For casting the larger sizes of display type a Pump with a larger Piston, 1 1-16″ in diameter, is sometimes used. The parts required to equip a machine with this special 1 1-16″ Pump are as follows:

Piston (1 1-16″)		a17H7	4.00
handle		17H1H	*
" stem		17H2	*
" " nut	314	17H3	*
Piston group		X17H7	4.50

*17H1H is assembled with 17H2 and 17H3.

Price assembled ..... .50

Piston Spring (for 1 1-16″ Piston)	6159	a20H7	1.32

Pump Body (1 1-16″)		a23H9H	*
bearing		23H1	★.13
guide		a23H10	*2.45
" screw (2)	220	23H3	★.10
plug		a23H13	*1.00
regulating screw		23H5	★.75
valve		a23H12	*1.00
Pump Body group		X23H9	18.00

*a23H9H is assembled with 23H1, 23H3, 23H5, a23H10, a23H12 and a23H13. Order by complete symbol X23H9.

Note H35—Type-&-Rule Casters prior to 4619, also 4648 to 4657 were equipped with the following part:

Pump-trip-rod Handle		54H1	

This Handle is obsolete; order instead the standard parts a31F7, 35H8 and a35H12 which can be applied to these machines in place of 54H1 without any other change. These standard parts are required if the Automatic Cutter is applied (see Attachment 12CU).

Note H36—Machines equipped with 3-burner Gas Burner using natural gas instead of artifical gas are equipped with the following parts:

Gas Burner valve (3)		a55H4H	*
" nozzle (3)		a55H30	★.10

*a55H4H are each assembled with one of a55H30. Price each 1.45

Machines equipped with 3-burner Gas Burner prior to August 26, 1918 (this includes all Rule Mold Operating Attachments shipped prior to that date) were equipped with the following parts:

Gas Burner		55H1H	*
air regulating sleeve (3)		55H2	★.07
" " " screw (3)	2203	55H3	★.07
" " " " washer (3)	419	55H13	★.04
screen (3)		55H14	★.25
" holder (3)		55H15	.60
" " collar (3)		55H16	.26
valve		55H4H	†
" body		55H9H	‡
" " bolt	113	55H10	.10
" " pipe		55H17	★.12
" " " elbow		55H18	★.07
" " " " nipple (brass)		55H19	★.20
" " plug (1-4″ pipe) (2)		55H12	★.06
" " " (190″, brass) (3)	2235	55H11	★.03
" nozzle (3)		a55H5	★.10
" nut (3)		55H7	★.11
" " lock nut (3)	392	55H8	★.08
" spring (3)	6185	55H6	★.13
Gas Burner group		X55H	

and omitted Xb55H.

*55H1H is assembled with 55H2, 55H3 and 55H13. This Burner is obsolete; order instead, Gas Burner b55H1H and at the same time order Bolt a55H32H, Clamp a55H20, Nut a55H21, Washer a55H31, three Screens a55H14, three Holders a55H15, and three Collars a55H16, (see Attachment 11CU). With this combination the Burner and Body will have to be altered slightly to give proper swing and stop to one of the Valves 55H4 and to keep the air intake correct for that Valve.

†55H4H is assembled with a55H5. Price is 1.45

(If natural gas is used omit Valves 55H4H and substitute Valves a55H4H which are assembled with a55H30. Price each assembled ..... 1.45)

‡55H9H is assembled with 55H4H, 55H6, 55H7, 55H8, 55H11, 55H12, 55H17, 55H18 and 55H19. This Valve Body is obsolete; order instead Valve Body a55H9H (see Attachment 11CU). With this combination the Burner and Body will have to be altered slightly to give proper swing and stop to one of the Valves 55H4 and to keep the air intake correct for that Valve.

Gas Burner bolt		a6H4	.30

Note H37—Machines prior to 5355 equipped with the 2-burner Gas Burner were equipped with the following parts:

Gas Hose (3-8″ x 15 3-4″)		50H	1.00
Gas Hose (3-8″ 19 x 1-2″)		51H	1.10

Note H38—Machines prior to 5355 equipped with the 2-burner Gas Burner were equipped with the following parts:

Gas Regulating Valve (2)		10HH	*
handle (2)		10H1	*
" rivet (2)	7139	10H5	.01
spring (2)	6113	10H2	*
body (2)		10H3	*
nipple (2)		10H4	★.20
Gas Regulating Valve group (2 each)		X10H	3.30

*10HH is assembled with 10H1 to 10H4 inclusive. Order by complete symbol X10H.

Note H39—Machines prior to 5355 equipped with the 2-burner Gas Burner were equipped with the following parts:

Gas-regulating-valve Stand		11H	1.26
elbow (1-4″, 45°)		11H1	.07
nipple (for 49H)		11H2	.20
pipe (1-4″ x 1 3-8″)		11H3	.07
screw (2)	215	11H4	.10
Gas-regulating-valve Stand group		X11H	1.80

Note H40—Type-&-Rule Casters prior to 7143 (except 6953, 6963 to 6982 inclusive) were equipped with the following parts:

Air Pipe (iron 1-8″ x 1 1-8″)		1H2	.07
tee (1-8″)		1H11	.07
elbow plug		a1H16	.06

Note H41—Machines prior to 7936 were equipped with the following parts:

Swing-frame Screw		39H	11.88
nut	329	39H1	.14
washer		39H2	.26
" pin	787	39H3	.03
Swing-frame Screw group		X39H	12.31

To apply the improved parts see Improvement No. 31.

Note H42—Machines 7936 to 8192 inclusive were equipped with the following parts:

Swing-frame-screw Crank		a40HH	
pin	7178	a40H3	
Swing-frame-screw Crank group		Xa40H	

This part will no longer be furnished. Order instead the improved part Xb40H.

Machines prior to 7936 were equipped with the following parts:

Swing-frame-screw Crank		40HH	*
clamp bolt	110	40H1	.11
handle		40H2	1.13
Swing-frame-screw Crank group		X40H	3.30

*40HH is assembled with 40H1 and 40H2. Order by complete symbol X40H.

To apply the improved parts see Improvement No. 31.

Note H43—Machines prior to 7936 were equipped with the following parts:

Pump-body-operating-rod-lever-stand Support		30H	1.98
screw (2)	29	30H1	.11
Pump-body-operating-rod-lever-stand Support group		X30H	2.20

Machines equipped with Improvement No. 31 (in effect on machine No. 7936) do not require Group 30H.

Part V—Improvements

Improvements are made so they can be applied to any prior machine. If the improvement affects one or more pieces in a single group the information as to the parts required to apply it is given in the "Notes." When the improvement affects several groups the "Notes" refer to this "Improvement" list where the parts of the groups required are collated for convenience in ordering.

NUMERICAL INDEX OF IMPROVEMENTS

1 Low Quad Device
2 Centering Pin Micrometer Adjustment
3 Matrix Load Reducing Device
4 Increased Stroke of Centering Pin
5 Cross-beam Lifting Lever
6 Mold Blade Micrometer Adjustment
7 Cross Slide
8 Type Carrier
9 Matrix-jaw-shoe Packing Block and Shoe
10 Pin-jaw-guide-rod Stand
11 Double Spring Box and Pin-jaw Tongs
12 Matrix Jaws and Tongs
13 Matrix-jaw Stop Racks and Locking Bars
14 Matrix-jaw Stop Racks and Locking Bars for eighteen-point composition
15 Paper-feed Spring Box
16 Galley Cam and Line-hook Operating Bar
17 Line-hook Operating Slide and Latch
18 Trip Lever for galley mechanism
19 Melting Pot Adjustment
20 Piping, Water Valves and Gas-cock Operating Handle
21 Cam Oiling Device
22 Type-pusher-cam Latch
23 Belt Shifter Mechanism for Speed Regulating Attachment
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25 Centering Pin and its Guide for Type-&-Rule Caster

Numerical Index of Improvements—continued

26 Matrix-holder Positioner for Type-&-Rule Caster
27 Mold-blade Shifter for Type-&-Rule Casters
28 Sixty Pica Device
29 Three-burner Gas Burner
30 Pump-trip Handle
31 Swing Frame

Improvement No. 1

LOW QUAD DEVICE

(Including Centering Pin Lifting Device)

Originally in effect on machine 2203 but has also been applied to many prior machines.

When applied to your machines fill in the following:

Applied to machines Nos. .....

Object: To cast either high or low spaces in composition.

To equip machines with this improvement requires the following parts and alterations. For machines prior to 503 not already equipped with the Increased Stroke of Centering Pin (Improvement No. 4) this must be applied at the same time. It is advisable also to apply at the same time the Centering Pin Micrometer Adjustment (Improvement No. 2) and the Mold Blade Micrometer Adjustment (Improvement No. 6).

Bridge bushing nut (hexagonal) (2)		1A7	.60
" adjusting screw (rear)		1A9	.13
Bridge Bracket group		Xa10A	17.93

Bridge 1AA must be drilled and reamed for Dowels 10A2 and drilled and tapped for Screws 10A6 on machines prior to 2203.

Low Quad Device—continued

Bridge-bracket Spring Box group	X12A	2.65
Bridge-bracket-Spring-box Bell Crank group	X13A	2.59
Bridge-bracket-spring-box Lifting Tube group	Xa14A	2.13
Bridge-bracket Yoke group	X16A	2.26
Bridge-bracket-yoke Link group	Xa17A	1.52
Bridge-bracket-yoke-link Slide group	a51A1	1.00
Bridge-bracket-yoke-link-slide Spring group	X52A	.19
Centering Pin group	X28A	4.69
Centering-pin Auxiliary Lever group	X30A	5.94
Centering-pin Lifting Link group	Xa31A	2.73
Centering-pin Spring group	X18A	2.48
Centering-pin-spring Abutment group	X19A	3.30
Centering-pin-spring-abutment Lever (left) group	X20A	4.93
Centering-pin-spring-abutment Lever (right) group	X21A	4.93
Centering-pin-spring-abutment-lever Adjusting Screw group	X22A	1.13
Centering-pin Stand		
adjusting screw (left)	a6A9	.07
spring plunger lever stand	a6A20	1.50
" " " " screw (3)	a6A21	.08

Low Quad Device—continued

These parts a6A9, a6A20 and a6A21 are not required if the Centering Pin Adjusting Device (Improvement No. 2) is also applied. Screw a6A9 is not required for machines 2554 and following, as it was a part of the equipment. The Stand a6A20 supports the Eye Bolt 30A3. On machines 2931 and following these parts a6A20 and a6A21 were discarded, being replaced by a lug cast on the Bridge. Some of the earlier attachments used instead of the above parts the Bridge Block 26A1 and Screws 26A2, but those parts are obsolete and will no longer be furnished; if required, the improved parts a6A20 and a6A21 will be furnished instead.

Lifting-tube Operating Fork group	Xa23A		2.09
Lifting-tube-operating-fork Spring group	Xb24A		.88
Lifting-tube-operating-fork Stop group	Xa25A		1.13
Air-pin Block spring post (for 87E7)		b3C7	.08
Mold-blade Operating Rod fork		a16C5	3.50

If Mold-blade Micrometer Adjustment (Improvement No. 6) be applied, this Fork is superseded by the improved Fork b16C5 which is part of that improvement.

Mold-blade-carrier-latch Bell Crank group	Xa87E		2.20
Mold Clamp		89E1	.26
Stop Slide		a44FF	*

*a44FF is assembled with 44F15. Price assembled is....3.64

When a44FF is applied the Line Supports X29F and X30F must be bevelled to suit.

Price of parts of Low Quad Device for these machines complete as listed above **77.58**

In addition to furnishing the above new parts the Cross-slide Guide 7C must be altered to a7C on machines prior to 2791, and on machines prior to 2310 the Mold-blade Abutment Slide a14C must also be altered to suit.

Machines 503 to 2221 inclusive require in addition to the above the following:

Bridge Lever		b2AA	*

*b2AA is assembled with a2A7. Price.. 2.50

(For machines prior to 503 this is included with increased Stroke of Centering Pin—Improvement No. 4.)

Price of parts for these machines complete as listed above **80.08**

Centering Pin Lifting Device.

This is included with the Low Quad Device and the parts comprising it are listed above. For plants using Single Blade Molds and high quads throughout, the Lifting Device can be furnished separately. It consists of the following parts from those listed above:

Centering-pin Spring	**668**..	18A2	.16
Centering-pin-spring Abutment group		X19A	3.30
Centering Pin group		X28A	4.69
Centering-pin Auxiliary Lever group		X30A	5.94
Centering-pin Lifting Link group		Xa31A	2.73
Centering-pin Stand		a6A9	.07
adjusting screw (left)		a6A20	1.50
spring plunger lever stand		a6A21	.08
" " " " screw (3)	**2198**..		

(See Note following these parts in Low Quad List above.)

Also the following additional parts which are not required when the Low Quad Device is applied:

Centering Pin spring abutment (lower)		a5A11	2.33
Centering-pin Guide		27A1	1.98
set screw	**247**..	27A2	.04
Centering-pin Guide group		X27A	2.02

Price of Parts of Centering Pin Lifting Device for these machines complete as above, when furnished separately from the Low Quad Device **22.98**

Machines 503 to 2221 inclusive require in addition to the above the following:

Bridge Lever		b2AA	2.50

Price of Parts of Centering Pin Lifting Device for these machines complete as listed above **25.48**

For machines prior to 503 the above Bridge Lever is included with "Increased Stroke of Centering Pin" (Improvement No. 4) and therefore not included in this Improvement No. 1.

Improvement No. 2

CENTERING PIN MICROMETER ADJUSTMENT

In effect on machines 4085 to 4102 inclusive, 4109 and following.

When applied to your machines fill in the following:

Applied to machines Nos.....

Centering Pin Micrometer Adjustment—continued

Object: To provide a micrometer adjustment of the Centering Pin for quickly and accurately obtaining correct alignment and side bearing.

To equip machines with this improvement requires the following:

Bridge		a1AA	*
leg spring post (for 7A1)		1A5	.07
bushing adjusting screw (front and rear)	2	1A9	.13

*a1AA is assembled with 1A2, 1A3, 1A4, 1A10, b1A11 and a1A12. Price assembled 39.60

Centering-pin Micrometer Screw group		X33A	6.29
Centering-pin Aligning Lever group		X35A	2.93

All other parts are to be transferred from the customer's old Bridge to this new Bridge

Price of parts as listed above **49.15**

Improvement No. 3

MATRIX LOAD REDUCING DEVICE

In effect complete on machines 5540 and following. In partial effect on prior machines as listed below.

When applied to your machines fill in the following:

Applied to machines Nos.....

Object: To reduce the pressure of the Centering Pin in the Matrix while the Matrix is seating on the Mold and to apply it after the Matrix has seated, thus reducing wear and increasing the life of Molds, Matrices, and Matrix Cases.

This is an improvement to the Low Quad Device and is included in the parts of that device as listed in Improvement No. 1. To apply this improvement to machines having the Low Quad Device but not this Improvement requires parts as follows:

Machines prior to 5540 have the parts of this improvement except the following:

Bridge-bracket-yoke Link (left)		a17A1	.60
(right)		a17A2	.60
Bridge-bracket-yoke-link Slide		a51A1	1.00
Bridge-bracket-yoke-link-slide Spring group (2) each		X52A	.19
Lifting-tube-operating-fork Stop group		Xa25A	2.00

These parts can be applied in place of the superseded parts without any other change on these machines.

Price of parts for these machines complete as listed above **4.58**

Machines prior to 4113 require, in addition to the above, the following parts:

Bridge Bracket spring (2)	**6123**..	a10A10	.11
" pin	**881**..	a10A9	.05
Bridge-bracket Yoke		16A1A	

*16A1A is assembled with a16A4. Price 2.16

Lifting-tube Operating Fork group		Xa23A	2.19
Lifting-tube Operating Fork block rod		b24A5	.04
" " eye		24A8	.47

Price of parts for these machines complete as listed above **9.71**

Improvement No. 4

INCREASED STROKE OF CENTERING PIN

In effect on machines 502 and following.

When applied to your machines fill in the following:

Applied to machines Nos.....

Object: To give improved alignment.

This improvement is required when applying the Low Quad Device (Improvement No. 1).

To apply this improvement to machines prior to 502 requires the following:

Bridge Lever		b2AA	*

*b2AA is assembled with a2A7. Price.. 2.50

Carrying Frame guide rod oil cap (2)		a4A4	.13
" " " screw (2)		a4A5	.04
" " cross beam		a4A6A	*

*a4A6A is assembled with a4A8. Price. 2.32

If Improvement No. 1 is also being applied the improved Centering Pin group is included in that. If that Improvement is not being applied it will be necessary to furnish the Centering Pin group Xa5A as listed in Note A8. The price of these parts is not here included.

Centering-pin Stand		a6A	6.60
bushing		b6A5	3.96
nut		a6A22	.73
Normal-wedge Locking Pin shank		a14B7	.26
spring	**669**..	a14B8	.26

and discard a14B9 and shorten a14B11 to 1-4"

Increased Stroke of Centering Pin—continued

Justification-wedge-lever Arm Rod (2)	**839**..	15D3	.13
Transfer-wedge-shifter-lever Arm Rod	**839**..	57D4	.13
Centering-pin Cam group		Xa13E	7.50
Centering-pin Lever stud		16E4	.07

Price of parts for these machines complete as listed above **24.87**

In addition to the above new parts the following additional parts may have to be altered for clearance, or other reasons as stated, to conform to the new requirements:

Bridge-lever Connecting Link 2A1; Matrix-jaw-stop-rack Locking Bar (front) 13B; Normal-wedge-locking-pin Tube 14B11 (shorten to 1-4"); Type Pusher 29B; Type-pusher Guiding Lever 30B; Air-pin Block (rear) 3C; Mold-blade Abutment Slide 14C; Galley Trip Rod 8D; Justification-wedge Lever 13D; Justification-wedge Lever 14D; Pump-trip-tube Spring 50D; Cam shaft Stand 12E; Centering-pin Lever 16E (drilled for new position of 16E4).

Improvement No. 5

CROSS-BEAM LIFTING LEVER

In effect on machines 5293 and following.

When applied to your machines fill in the following:

Applied to machines Nos.....

Object: To facilitate the changing of Matrix Cases.

When this improvement is applied the improved Cross Slide (Improvement No. 7) should be applied at the same time.

To apply this Improvement No. 5 to machines prior to 5293 requires the following:

Cross-beam Lifting Lever group		X42A	**10.00**

In addition supply also Improvement No. 7 which see for prices for the various series of machines.

In addition to furnishing the above new parts the Bridge a1AA must be drilled and tapped for Screws 42A8 and the Fiber Stop 7A altered to suit.

Note: While Improvements No. 5 and No. 7 can be applied independently of each other it is by all means advisable to supply them together and especially to always apply No. 7 (Cross Slide) when No. 5 (Lifting Lever) is applied, in order to obtain the full benefit of the quick change of Matrix Case. The Lifting Lever positions the parts to permit the Matrix Case to be slid in or out while the improved Cross Slide automatically positions the Matrix Case as it is inserted.

Improvement No. 6

MOLD BLADE MICROMETER ADJUSTMENT

In complete effect on machines 4363 and following; in partial effect on prior machines as listed.

When applied to your machines fill in the following:

Applied to machines Nos.....

Objects: To facilitate the adjustment of the Mold-blade Abutment; to reduce the load on the Mold Blade when ejecting type; to prevent Ejecting Spring from wearing on C Pin Block.

To apply this improvement to Composing Machines 3966 to 4362 inclusive, and Type-&-Rule Casters 4049 to 4362 inclusive, requires the following:

Mold-blade Operating Rod ejecting spring (long)	**6186**..	a16C2	.28
" " (short)	**6187**..	a16C17	.20
" " sleeve		b16C4	.26

The above parts can also be applied as a separate improvement to any prior machine.

Price of parts for these machines complete as listed above **.74**

When the complete improvement is applied there is required in addition to the above the following:

For Composing Machines 2907 to 3965 inclusive:

Mold-blade Abutment Slide group		Xb14C	13.20
Mold-blade Operating Rod		a16C	1.32
fork		b16C5	3.50
nut		a16C16	.50
" lock nut	**312**..	a16C15	.07

Alter Cross-slide Guide a7C (or 7C).

Price of parts for these Composing Machines complete as listed above **19.33**

For Type-&-Rule Casters 2709 to 4048 inclusive:

Mold-blade Abutment Slide group		Xc14C	12.52

Mold Blade Micrometer Attachment—contiuued

Mold-blade Operating Rod	a16C		1.32
fork	b16C5		3.50
nut	a16C16		.50
lock nut	a16C15	312..	.07

Alter Cross-slide Guide a7C (or 7C).

Price of parts for these Type-&-Rule Casters complete as listed above **17.91**

Machines prior to 2709 require in addition to the above the following:

Pin Wrench (60° bend)			.13

Price of parts for these Composing Machines complete as listed above **19.46**

Price of parts for these Type-&-Rule Casters complete as listed above **18.04**

In addiiton to the above it is advisable also to apply at the same time the improved Mold-blade Cams X43E which are marked "G1" (the superseded Cams are marked "G"). See Note E26 for these Cams.

Improvement No. 7

CROSS SLIDE

In effect complete on machines 5293 and following:

When applied to your machines fill in the following:

Applied to machines Nos. .....

Objects: To provide a stop to position the Matrix Case when it is being inserted in the machine; to strengthen the Cross Slide by eliminating the separate bearing plate.

In order to obtain the full benefit from this improvement on the Composing Machine the Cross-beam Lifting Lever (Improvement No. 5) should be applied at the same time.

To apply this improvement to Composing Machines or Type-&-Rule Casters 4508 to 4512 inclusive, 4533 to 4537 inclusive, 4573 to 4582 inclusive, 4589 to 4602 inclusive, 4619 to 4647 inclusive, 4658 to 5292 inclusive, and to Type-&-Rule Casters 4618 to 5292 inclusive, requires the following:

Cross Slide	c5CC		11.00

Price of parts for these machines complete as listed above **11.00**

Composing Machines prior to 4508, also 4513 to 4532 inclusive, 4538 to 4572 inclusive, 4583 to 4588 inclusive, 4603 to 4618 inclusive, and 4648 to 4657 inclusive, require in addition to the above the following parts:

Normal-wedge-locking-pin Stand screw		233..	15B6* .07

*Replaces 15B5.

Cross-slide Draw Rod	b5C1		1.50
Mold-blade Operating Rod fork pin	a16C6		.66
" " spring	b16C7		.13
" " " screw (2)	16C8	247..	.04

Price of parts for these Composing Machines complete as listed above **13.42**

In addition to furnishing the above new parts the Stand a15B and Guide a7C (or 7C) must be altered to suit.

Type-&-Rule Casters 3966 and 4049 to 4618 inclusive require in addition to the Cross Slide c5CC the following:

Normal-wedge-locking-pin Stand screw		233..	15B6* .05

*Replaces 15B5.

Mold-blade Operating Rod fork pin	a16C6		.66
" " spring	c16C7		.13
Mold-blade Shifter latch	26C6		.66
" rivet (2)	26C7		.04

Price of parts for these Type-&-Rule Casters complete as listed **12.58**

In addition to furnishing the above parts the Stand a15B, Guide a7C, Wedge-cover Bracket a24C2, Mold-blade Shifter 26C1 and Mold-blade Bell Crank 28C1 must be altered.

Type-&-Rule Casters prior to 4049 (except 3966 for which see above).

These machines were not equipped with the Mold-blade Shifter (Improvement No. 27) and therefore would not require the Latch 26C6 and Rivets 26C7 listed above.

Price of parts for these Type-&-Rule Casters complete as listed **11.84**

Improvement No. 8

TYPE CARRIER

In effect on 4353, 4527, 4542, 4546, 4549, 4551, 4552, 4573 to 4602 inclusive, 4608 and following.

When applied to your machines fill in the following:

Applied to machines Nos. .....

Objects: To eliminate breakage to Type Clamp and Type-support Spring; also for machines prior to 1203, to handle all sizes of type with one Type Carrier.

Type Carrier—continued

To apply this improvement to machines 1203 and following not equipped with it requires the following:

Type Carrier group including Eye 21B1B, Clamp Xd26B, Shoe Xc27B and Spring Xc31B	Xd20B		47.24
Type-carrier Shoe (long)	b23BB		2.64
Type-carrier Shoe (short)	b24B		.34
plate	a24B2		.66

Price of parts for these machines complete as listed above **50.88**

Machines 941 to 1202 inclusive in addition to the above require also the following:

Type-carrier-connecting-rod Forked Eye	a21B5		1.32
Type-pusher Guide group	Xa28B		2.99
Type Pusher	b29BB*		8.00

*If a29BB has been applied then b29BB is not required unless the Improved Locking Bars and Stop Racks (Improvement No. 13) are being applied also.

Type-carrier-cam-lever Extension and discard Type-pusher Lever group X30B.	a72E4		1.50

Price of parts for machines 941 to 1202 inclusive complete as listed above **64.69**

In addition to the above the following alterations are also required: On machines prior to 1203 the Air-pin Block 3B must be altered to take the Type-pusher Guide Xa28B. On machines prior to 1263 the Mold-blade-operating-rod-sizing-spring Sleeve 16C12 must be shortened to 1 7-16".

Machines prior to 941 in addition to the above require also the following:

Mold-blade Operating Rod distance sleeve	a16C1		.20

Price of parts for machines prior to 941 complete as listed above **64.89**

In addition to the above the following alterations are also required: For machines prior to 941 the Mold-blade-operating-rod-sizing-spring Sleeve 16C1 must be shortened to 2 13-32".

Intermediate improvements on the Type Carrier.

Referring to Note B17 on the Type Clamps:

Machines prior to 1203 were equipped with Type Clamp X26B; this will be furnished only as a repair part; to apply the improved Clamp requires the complete Improvement No. 7. Machines 1203 to 2524 inclusive were equipped with Xa26B and machines 2525 to 4015 inclusive were equipped with Xb26B; these are both obsolete and will no longer be furnished, order instead Xc26B and at the same time order Shoe b27B and Rod a27B2. When this Clamp Xc26B replaces Xa26B the Y and Z Molds must be altered due to the lug for opening the Clamp being further to the right. This alteration has already been made if Xb26B is on the machine. To apply Clamp Xd26B to machines equipped with any of these prior Clamps requires that this Improvement No. 7 be furnished complete.

Referring to Note B12 on the Type-carrier Lever and its Pin. Machines prior to 1203 had Lever 20B3 and Pin 20B4; to apply the improved parts to these machines requires this complete Improvement No. 8. Machines 1203 to 1482 inclusive had the Lever a20B3, Stand a20B1 and Pin a20B4, and machines 1483 to 2525 inclusive had Lever b20B3, Stand a20B1 and Pin a20B4; these parts are obsolete, the Pin will be furnished as a repair part but the Lever and Stand will no longer be furnished; if the Lever is required order c20B3 and with it order Pin b20B4 and Cotter a20B9 and alter the Stand a20B1; if the Stand is required order also Pin b20B4 and Cotter a20B9; in either case be sure Pin b20B4 clears the Shoe a23B.

Improvement No. 9

MATRIX-JAW-SHOE PACKING BLOCK AND SHOE

In effect complete on machines 4553 and following; in partial effect on prior machines as listed.

When applied to your machines fill in the following:

Applied to machines Nos. .....

Objects: To prevent the B Pin Jaws passing a raised Pin and to improve the holding power of the Packing Block and Pin-jaw Guide Rod.

To equip machines 4527 to 4552 inclusive with this improvement requires the following:

Matrix-jaw-shoe Packing Block (left, large)	b9B		1.98
clamp (lower)	a9B5		.20
" (upper)	a9B6		.13
" screw	a9B7	231..	.08
dowel	9B2	55..	.05
screw (rear)	a9B8	221..	.08
" (front)	a9B9	227..	.08

Price of parts for these machines complete as listed above **2.60**

In addition to furnishing the above new parts the Air-pin Block c3B must be drilled and tapped and the dowel hole reamed with the Packing Block in place.

Matrix-Jaw-Shoe Packing Block and Shoe—continued

Machines 3603 to 4526 inclusive require in addition to the above the following:

Pin-jaw Guide Rod	18B		1.50
screw	a18B1		.03

Price of parts for these machines complete as listed above **4.13**

Machines prior to 3603 require in addition to the above the following:

Matrix-jaw-shoe Packing Block screw	a9B3	220..	.10
shoe	a9B4		.26

Price for parts for these machines complete as listed above **4.49**

In addition to furnishing the above new parts the Pin Jaws 16BB and 17BB must be altered to clear the Shoe a9B4.

Machines equipped with Eighteen-point Attachment prior to machine 4553 require the same parts as regular machines listed above except as follows:

Omit

Matrix-jaw-shoe Packing Block (left, large)	b9B		

And in place of it substitute the following:

Matrix-jaw-shoe Packing Block (left, large)	b9B10		1.98

The prices are the same for the Eighteen-point machines as for the regular machines.

Improvement No. 10

PIN-JAW-GUIDE-ROD STAND

In effect on Composing Machines 4658 and following and on Type-&-Rule Casters 4988 to 7142 inclusive (except 6953, 6963 to 6982 inclusive):

When applied to your machines fill in the following:

Applied to machines Nos. .....

Object: To eliminate breakage of Normal-wedge-locking-pin Stand.

To apply this improvement to Composing Machines not equipped with it requires the following:

Air-pin Plate	a4B		6.00
Pin-jaw-guide-rod Stand group	X36B		1.26

Price of parts for Composing Machines complete as listed above **7.26**

In addition to furnishing the above new parts the Normal-wedge-locking-pin Stand a15B must be altered to make it b15B by sawing off the lug which supported the Pin-jaw Guide Rod.

This improvement must be applied when a new Normal-wedge-locking-pin Stand Xb15B is ordered for the first time for a Composing Machine prior to 4658.

If instead of altering the Normal-wedge-locking-pin Stand a new Stand b15B is supplied it will be necessary on Machines 503 to 702 inclusive to furnish also Normal-wedge-locking-pin-bushing Guide Screw 14B6 and open out the Keyway in the Locking Pin 14B and its Bushing 14B3 to suit this Screw (see Note B9.)

On machines prior to 503 it will be necessary in addition to the above to order also Micrometer - wedge Adjusting Screw a20D2, Spring a20D3, Shank a20D1 and Nut a20D5 as described in Note D5.

To apply this improvement to Type-&-Rule Casters prior to 4988 it requires the following:

Air-pin-block Cover Plate	a33B1		3.96
screw (2)	33B2	223..	.08
Pin-jaw-guide-rod Stand group	X36B		1.26

Price of parts for Type-&-Rule Casters complete as listed above **5.38**

In addition to furnishing the above new parts the Normal-wedge-locking-pin Stand a15B must be altered to make it b15B by sawing off the lug which supported the Pin-jaw Guide Rod.

For Type-&-Rule Casters prior to 4988:

This improvement must be applied when a new Normal-wedge-locking-pin Stand Xb15B is ordered for the first time.

Improvement No. 11

DOUBLE SPRING BOX AND PIN-JAW TONGS

In effect on machines 520 and following.

When applied to your machines fill in the following:

Applied to machines Nos. .....

Object: Improved adjustment of the Pin Jaws and Matrix Jaws by giving independent adjustment to the B and C groups.

When this improvement is applied it is advisable also to apply the following: Matrix Jaws and Tongs (Improvement No. 12) and the improved Locking Bars and Stop Racks (Improvement No. 13) if not already on the Machine.

Double Spring Box and Pin-Jaw Tongs—continued

To apply this Improvement No. 11 requires the following:

JAW-TONGS BELL CRANK (lower) ..... a21EE *
(upper) ..... b21E10E †
*a21EE is assembled with a21E1. Price assembled is 13.20
†b21E10E is assembled with a21E11. Price assembled is 11.88

JAW-TONGS-CAM LEVER group Xa24E 19.72

JAW-TONGS SPRING BOX group includes BALL SOCKETS Xa27E and Xa81E Xa26E 30.10
PIN-JAW TONGS group Xa55E 17.80
Price of parts for these machines complete as listed above 92.70

In addition to furnishing the above new parts file clearance for the JAW-TONGS-BOX-SPRING-ROD CROSSHEAD a26E1 in the AIR-TOWER-HOUSING-BASE 1G3 and bend the PAPER-TOWER OPERATING ROD 54E to clear the JAW-TONGS SPRING BOX.

Improvement No. 12

MATRIX JAWS AND TONGS

In effect on machines 3603 and following.
When applied to your machines fill in the following:

Applied to machines Nos. .....

Object: To increase the durability of the parts.
When this improvement is applied the following improvement must be applied at the same time if not already on the machine: Double Spring Box and Pin-jaw Tongs (Improvement No. 11).

To apply this Improvement No. 12 to machines not equipped with it requires the following:

MATRIX JAW (left) a5B 4.00

MATRIX JAW (right) a6B 3.50

MATRIX JAW (front) a8C 2.50

MATRIX JAW (rear) a9C 2.50

MATRIX-JAW TONGS group Xa37E* 19.80
*TONGS rebuilt into the new style will be furnished in exchange for the superseded TONGS. Price for exchange 9.90

MATRIX-JAW TONGS group Xb38E* 19.80
*TONGS rebuilt into the new style will be furnished in exchange for the superseded TONGS. Price for exchange 9.90

Price of parts for these machines complete as listed above (including exchange of Tongs) 32.30

Price if new Tongs are furnished instead of exchanging the superseded Tongs for rebuilt Tongs 52.10

Improvement No. 13

MATRIX-JAW STOP RACKS AND LOCKING BARS

In effect complete on standard machines 5058 and following, in partial effect on prior machines as listed.
For machines equipped with Eighteen-point Attachment (Attachment 10CU) see Improvement No. 14.
When applied to your machines fill in the following:

Applied to machines Nos. .....

Objects: Increased strength and durability of parts, more positive action and improved timing.
When this improvement is applied the Double Spring Box (Improvement No. 11) must also be applied if not already on the machine.
When this improvement is applied it is advisable also to apply the following: Matrix Jaws and Tongs (Improvement No. 12).

To apply this Improvement No. 13 to to machines 5008 to 5057 inclusive requires the following:

MATRIX-JAW STOP RACK Xd12B 7.00
This STOP RACK has thicker walls than the one it supersedes and is therefore stronger.

Machines 4573 to 5007 inclusive require in addition to the above the following:

MATRIX-JAW STOP RACK Xd12C 7.00
This STOP RACK has thicker walls than the one it supersedes and is therefore stronger.
Price of parts for these machines complete as listed above 14.00

Machines 4173 to 4572 inclusive require in addition to the above the following:

LOCKING-BAR OPERATING ROD spring .6191.. b33E7 .40
This SPRING is heavier than the one of the same symbol which it supersedes and requires different adjustment of the LOCKING BAR.

Price of parts for these machines complete as listed above 14.40

Matrix-Jaw Stop Racks snd Locking Bars—continued

Machines 4063 to 4172 inclusive require in addition to the above the following:

AIR-PIN BLOCK cover plate a3D1 1.32
Price of parts for these machines complete as listed above 15.72

Machines 3883 to 4062 inclusive require in addition to the above the following:

AIR-PIN BLOCK shoe ..... b3D6 .13
This SHOE can be used in place of 3D6 but not in place of a3D6 unless this improvement is applied.
Price of parts for these machines complete as listed above 15.85

Machines 3863 to 3882 inclusive require in addition to the above the following:

MATRIX-JAW-STOP-RACK LOCKING BAR group Xd13B 3.50

TYPE PUSHER b29BB 8.00

CROSS SLIDE draw rod a5C1 1.50
This ROD is not required if Improvement No. 7 has been applied.

MATRIX-JAW STOP group ..... Xb10C .46

MATRIX-JAW-STOP-RACK LOCKING BAR group Xc13C 7.10

PIN JAW a18CC 2.50

PIN-JAW-GUIDE-ROD STOP ..... 456.. a21C .05

JAW-TONGS BELL CRANK block ..... a21E12 .34
" rivet (2) ..... a21E13 .04

LOCKING-BAR BELL CRANK d28E 3.96
pin (3) ..... a28E3 .07

LOCKING-BAR OPERATING ROD eye (right) ..... a33E10 .66
Price of parts for these machines complete as listed above 44.21

In addition to furnishing the above new parts the following must be altered to suit: AIR-PIN BLOCK a3C; CROSS-SLIDE-EXTENSION SHOE 6CC; MATRIX-JAW STOP (rear) a11C; AIR-PIN BLOCK a3D; LOCKING-BAR OPERATING ROD a33E; LOCKING-BAR-OPERATING-ROD EYE (left) a33E5.

Machines 3603 to 3862 inclusive require in addition to the above the following:

LOCKING-BAR CAM c86E 3.75
Price of parts for these machines complete as listed above 47.96

Machines prior to 3603 require that the AIR-PIN BLOCK b3B have its slot widened to take the new Stop Rack.

Machines 2710 to 3602 inclusive require in addition to the above the following:

MATRIX-JAW STOP group ..... Xb11C .80

PIN-JAW-TONGS-SPRING BELL CRANK a58EE 2.64

PIN-JAW-TONGS-SPRING LEVER a62EE 2.64
Price of parts for these machines complete as listed above 54.04

Machines 1843 to 2709 inclusive require in addition to the above the following:

LOCKING-BAR OPERATING ROD spring washer ..... 410.. a33E9 .07
Price of parts for these machines complete as listed above 54.11

Machines 1603 to 1842 inclusive require in addition to the above the following:

AIR PIN group ..... Xa2B .33

AIR PIN group ..... Xa2C .33
Price of parts for these machines complete as listed above 54.77
In addition to furnishing the above new parts the AIR-PIN BLOCKS a3B and 3C must be further altered to suit. This alteration can be made only in our factory.

Machines 1383 to 1602 require in addition to the above the following:

LOCKING-BAR-CAM LEVER c34EE 15.18
This is the LEVER to go with the wide CAM c86E (also with b86E) but not with a86E.
Price of parts for these machines complete as listed above 69.95

Machines 520 to 1382 inclusive require in addition to the above the following:

JAW-TONGS CAM group X23E 7.50
These improved CAMS, marked "E2" give a longer dwell to the MATRIX JAWS which is essential with the improved STOP RACK and LOCKING BAR mechanism.
Price of parts for these machines complete as listed above 77.45

Machines prior to 520 require in addition to the above the following:

CAM-SHAFT STAND a12EE 132.00

LOCKING-BAR-BELL-CRANK STUD group ..... Xb32E .54

LOCKING-BAR-CAM-LEVER FULCRUM STUD group Xa35E 1.50

Matrix-Jaw Stop Racks and Locking Bars—continued

LOCKING-BAR OPERATING ROD ..... b33E .66
eye lock nut ..... 316.. a33E2 .07
hook ..... a33E5 .66
" lock nut (L. H.) ..... 315.. a33E6 .07
Price of parts for these machines complete as listed above 212.95
In addition to furnishing the above new parts the following must be altered to suit: CAM-LEVER-SHAFT STAND 9E must have the lug sawed off which formerly carried the LEVER 34E; MAIN STAND a36EE must be drilled and taper reamed for the STUD b32E.

Improvement No. 14

MATRIX-JAW STOP RACKS AND LOCKING BARS FOR EIGHTEEN-POINT COMPOSITION

In effect complete on eighteen-point machines 4415 and following, in partial effect on prior machines as listed.
When applied to your machines fill in the following:

Applied to machines Nos. .....

Objects: To use standard LOCKING BARS on eighteen-point composition machines, increased strength and durability, and improved timing.

To apply this improvement to machines which had been equipped with Eighteen-point Attachment prior to machine 4415 (june, 1914) requires the following:

MATRIX-JAW-STOP-RACK LOCKING BAR group Xd13B 3.50

CROSS SLIDE draw rod a5C1 1.50
This ROD is not required if the CROSS SLIDE (Improvement No. 7) has been applied.

MATRIX-JAW STOP group ..... Xb10C .46

MATRIX-JAW STOP RACK group Xc12C8 15.84

MATRIX-JAW-STOP-RACK LOCKING BAR group Xc13C 7.10

PIN JAW a18CC 2.50

PIN-JAW-GUIDE-ROD STOP ..... a21C .05

AIR-PIN BLOCK cover plate a3D1 1.32

LOCKING-BAR BELL CRANK (lower) a28E4E 3.64
pin (2) ..... a28E3 .07

LOCKING-BAR BELL CRANK (upper) a29E3E 3.64

Price of parts complete as listed above. 39.69
In addition to furnishing the above new parts the following parts must be altered to suit: LOCKING-BAR BRACKET 33C2; AIR-PIN BLOCK a3D; LOCKING-PISTON-BAR-LEVER LINK 161E1.

Improvement No. 15

PAPER-FEED SPRING BOX

In complete effect on machines 4731 and following, in partial effect on prior machines as listed.
When applied to your machines fill in the following:

Applied to machines Nos. .....

Object: Improved wearing qualities and to facilitate adjusting and operating.

To apply this improvement to machines 4453 to 4730 inclusive requires the following:

PAPER-FEED SPRING connection lock nut. ... a17G12 .20
In addition to furnishing the above new parts alter the CONNECTION a17G1 and TUBE 17G9.

Machines 4448 to 4452 inclusive require in addition to the above the following:

PAPER-FEED PAWL ..... 13G1G *

*13G1G is assembled with 13G2 to 13G9 inclusive. Price 8.58

PAPER-FEED SPRING BOX connection (upper) b17G1 1.00
pin ..... a17G2 .07
" cotter (2) ..... 95.. 17G3 .00
spring ..... 6184.. a17G5 .13
" rod a17G6 1.32
" " washer (2) ..... a17G8 .07

PAPER-TOWER LEVER a19G 1.32
stud ..... a19G1 .20
" ..... a19G3 .20

PAPER-TOWER OPERATING ROD eye (upper).. a54E3 .53
Price of parts for these machines complete as listed above 13.69

Since the new CONNECTION b17G1 is supplied for these machines it will of course not be necessary to alter the superseded one; the TUBE 17G9 must however be altered and clearance must be cut in the HOUSING 1G.

Machines 4253 to 4447 inclusive require in addition to the above the following:

PAPER-TOWER OPERATING ROD ..... 54E .79
Price of parts for these machines complete as listed above 14.48

Paper-Feed Spring Box—continued

Machines 683 to 4252 inclusive require in addition to the above the following:

AIR-BAR CLAMPING LEVER stud		3G1	.20
AIR-BAR-CLAMPING-LEVER CONNECTING ROD connecting hook		4G1	.66

Price of parts for these machines complete as listed above **15.34**

Machines prior to 683 require in addition to the above the following:

AIR-BAR-CLAMPING-LEVER CONNECTING ROD.		4G	.20
adjustable sleeve		a4G7	.20
" " lock nut	**37**	a4G8	.05
washer		a4G9	.04

Price of parts for these machines complete as listed above **15.83**

Improvement No. 16

GALLEY CAM AND LINE-HOOK OPERATING BAR

In effect complete on machines 1661, 1663, 1665 and following, in partial effect on prior machines as listed.

When applied to your machines fill in the following:

Applied to machines Nos.....

Object: To strengthen parts, give improved timing of LINE HOOKS and a positive stop at the forward end of their stroke.

To apply this improvement to machines 523 to 1660 inclusive, 1662 and 1664 requires the following:

GALLEY CAM			
fulcrum stud		a14F3	.26
" " washer (upper)	**410**	a14F9	.07
" " nut	**314**	a14F10	.07

Price of parts for these machines complete as listed above **.04**

In addition to furnishing the above new parts the hole in the GALLEY CAM must be enlarged to receive the STUD a14F3 with a driving fit.

Machines prior to 523 require instead of the above the following:

GALLEY CAM		b14FF	*
fulcrum stud washer (upper)	**410**	a14F9	.07
" " nut	**314**	a14F10	.07

*b14FF is assembled with a14F3 and 14F7. Price..... 23.76

LINE-HOOK OPERATING BAR		a21F	2.90
locking rod		a21F3	1.00
LINE-HOOK-OPERATING-BAR STOP adjusting screw		a22F1	.08

Price of parts for these machines complete as listed above **27.88**

Improvement No. 17

LINE-HOOK OPERATING SLIDE AND LATCH

In effect on machines 1603 to 5292 inclusive. For machines 5293 and following, which are increased to sixty pica measure, see Improvement No. 28.

When applied to your machines fill in the following:

Applied to machines Nos.....

Object: To provide a heavier return spring on the LINE-HOOK-OPERATING-SLIDE LATCH and to remove the LATCH from the path of the LINE SUPPORT at the point of rest.

To apply this improvement to machines prior to 1603 requires the follwoing:

LINE-HOOK OPERATING SLIDE group		Xb23F	4.01
LINE-HOOK-OPERATING-SLIDE LATCH group		Xa53F	4.24
LINE-HOOK-OPERATING-SLIDE SHOE		24F	2.90
LINE-HOOK-OPERATING-SLIDE SPRING BOX pin		a27F2	.13

Price of parts for these machines complete as listed above **11.28**

Improvement No. 18

TRIP LEVER FOR GALLEY MECHANISM

In effect complete on machines 4537 and following, in partial effect on prior machines as listed.

When applied to your machines fill in the following:

Applied to machines Nos.....

Objects: To facilitate changing from single to double justification to quicken engagement of LATCH and to strengthen GUIDE PIN.

When this improvement is applied it is advisable also to apply the improved STUD Xa46F, for which see Note F19.

To apply this improvement to machines 4131 to 4536 inclusive requires the following:

Trip Lever for Galley Mechanism—continued

TRIP LEVER			
adjusting screw clamp screw		a45F2	.07
distance pin plate		a45F15F	*
" " spring	**6132**	a45F17	.13
spring post		a45F19	.05

*a45F15 is assembled with a45F14, a45F16 and a45F18. Price..... 1.00

Price of parts for these machines complete as listed above **1.25**

In addition to furnishing the above new parts the TRIP LEVER b45FF must be altered to suit.

Machines 2841 to 4130 inclusive require in addition to the above the following:

TRIP LEVER			
latch spring	**6122**	a45F13	.08
" " post		a45F12	.04
spring post		a45F11	.05

Price of parts for these machines complete as listed above **1.42**

In addition to furnishing the above new parts the TRIP LEVER a45FF and the LATCH 45F3 must be altered to suit.

Machines prior to 2841 require in addition to the above the following:

TRIP LEVER			
latch guide pin		a45F4	.03

Price of parts for these machines complete as listed above **1.45**

In addition to furnishing the above new parts the TRIP LEVER 45FF and LATCH 45F3 must be altered to suit.

Improvement No. 19

MELTING POT ADJUSTMENT

In effect complete on machines 8853 to 8864 inclusive, 8920 and following, in partial effect on prior machines as listed.

When applied to your machines fill in the following:

Applied to machines Nos.....

Object: Improved adjustment of the MELTING POT for centering the NOZZLE and to hold the MELTING POT more firmly in position.

To apply this improvement to machines 4636 to 4647 inclusive, 4658 to 8919 (except 8853 to 8864 inclusive, see above) requires the following part:

MELTING POT casing		a12H2H	*

*a12H2H is assembled with a12H, 12H8, a12H9, a12H10, a12H11, a12H18, a12H19, a12H20, and a12H25. Order by complete symbol Xc12H. Price complete..... 42.58

To apply this improvement to prior machines requires in addition:

SWING FRAME		a37H	59.40
adjusting screw (long)	**119**	a37H9	.10
" " (short) (2)	**136**	a37H10	.08

Price of parts for these machines complete as listed above **102.24**

The above parts can be applied only in our factory.

Machines 103 to 578 inclusive and 580 to 662 inclusive.

On machines 579, 663 to 4635 inclusive and 4648 to 4657 inclusive there was a partial improvement in this adjusting and holding mechanism which can be supplied as a separate improvement for prior machines by furnishing the following when it is not desired to apply the complete improvement as above:

MELTING POT			
casing stud (2)		a12H9	.11
" " nut (2)	**310**	a12H10	.07
" " washer (2)	**410**	a1H11	.07
SWING FRAME			
adjusting screw (long) (2)	**256**	a37H7	.04
" " (short) (2)	**257**	a37H8	.04

Price of partial improvement for machines 603 to 578 inclusive and 580 to 662 inclusive as listed above **.66**

In addition to furnishing the above new parts for this partial improvement the SWING FRAME must be drilled and tapped for the ADJUSTING SCREWS a37H7 and a37H8.

Improvement No. 20

PIPING, INCLUDING WATER ESCAPE AND SUPPLY VALVES AND GAS-COCK OPERATING HANDLE

In effect complete on machines 5068 and following, in partial effect on prior machines as listed.

When applied to your machines fill in the following:

Applied to machines Nos.....

Object: Improved and more convenient water control and gas cut-off.

When this improvement is applied it is advisable also to apply the improved GAS BURNERS Xb55H. See Improvement No. 29.

To apply this improvement to machines 4638 to 5067 inclusive requiresthe following:

GAS PIPE			
(iron, 1-4" x 16 1-8")		b9H2	.34
(" 1-4" x 1 3-4")		a9H11	.08

Piping, Including Water Escape and Supply Values and Gas-Cock Operating Handle—continued

GAS-COCK OPERATING HANDLE group		X56H	4.22

Price of parts for these machines complete as listed above **4.64**

In addition to furnishing the above new parts the BASE a1E must be drilled for the handle 56H1 on machines prior to 4898.

Machines 4519 to 4528 inclusive and 4573 to 4637 inclusive require in addition to the above the following:

WATER SUPPLY VALVE group		Xb48H	1.53

Price of parts for these machines complete as listed above **6.17**

Machines 507 to 4518 inclusive and 4529 to 4572 inclusive require in addition to the above the following:

WATER ESCAPE VALVE group		Xb42H	1.70

Price of parts for these machines complete as listed above **7.87**

Machines prior to 507 require in addition to the above the following:

AIR COCK		a2H	.79
AIR PIPE group		Xa1H	3.08
GAS COCK (1-4" x 1-4")		a7H	.53
GAS PIPE group and omit b9H2 and a9H11 (listed above as being required for machines 4638 to 5067 inclusive) as these are included in Xb9H.		Xb9H	1.28
PIPE BRACKET group		Xa16H	4.42
WATER PIPE group		Xa43H	1.76
WATER PIPE group		Xa44H	1.40
WATER PIPE group		Xa45H	2.81
WATER PIPE group		Xa46H	1.48
WATER SUPPLY COCK		a52H	.79

Price of parts for these machines complete as listed above **26.21**

Improvement No. 21

CAM OILING DEVICE

In effect on machines 3748 and following.

When applied to your machines fill in the following:

Applied to machines Nos.....

Object: To reduce wear of CAMS and ROLLERS by providing a more efficient system of oiling.

To apply this improvement to machines prior to 3748 requires the following:

CAM-SHAFT-STAND PACKING PIECE (2) (each)		168E1	.07
OIL GUARD		113E1	3.96
OIL PAN group		X114E	7.50
OIL-PAN SHELF group		X115E	17.88
OIL-PAN-SHELF-BRACKET BOLT (8) (each)		116E1	.11

NOTE: If Attachment 9CU is also applied there are but seven of 116E1 used, as one is replaced by 130E1.

Price of parts for these machines complete as listed above **30.36**

In addition to furnishing the above new parts the four CAPS 12E1 and 12E2 must be returned to our factory to be altered to suit the BRACKETS 115E2 and 115E3. These CAPS then become one each of 12E1, 12E2, a12E15 and a12E16 (see Main List). A special set of CAPS will be loaned for use while the customer returns his for alteration. No charge is made for use the of the loan CAPS nor for the work of altering the customer's CAPS.

Machines equipped with Motor mounted on the CAM SHAFT side of the machine require in addition to the above the following:

BELT SHIFTER ARM		a3E8	1.66

Machines 3748 to 4492 inclusive were equipped with a superseded form of OIL PAN SHELF. Either improved part is interchangeable with the superseded part if furnished assembled (see Notes E31 and E32).

Improvement No. 22

TYPE-PUSHER-CAM LATCH

In effect complete on machines 4227 and following, in partial effect on prior machines as listed.

When applied to your machines fill in the following:

Applied to machines Nos.....

Object: To prevent flirting of the BELT SHIFTER when the machine is tripped and scoring of the back stop when the machine is turned over by hand with the BELT on the loose PULLEY.

Type-Pusher-Cam Latch—continued

To apply this improvement to machines 3567, 3664 to 3672 inclusive, 3683 to 3687 inclusive, and 3823 to 4226 inclusive, requires the following:

TYPE-PUSHER CAM latch	b75E2	2.64
Price of part for these machines as listed above		**2.64**

In addition to furnishing the above new part the CAM b75E1E must be altered to suit. This alteration can be made on these machines in the customer's plant.

Machines prior to 3567, also 3568 to 3663 inclusive, 3673 to 3682 inclusive, and 3688 to 3822 inclusive, require in addition to the above the following:

TYPE-PUSHER CAM	c75E1E	*
latch cotter..94..	a75E3	.00
" spring..6122..	a75E4	.08
" " pin	a75E6	*.05
" washer..46..	a75E5	.07

*c75E1E is assembled with a75E and a75E6. Price 7.50

Price of parts for these machines complete as listed above	**10.29**

The CAM SHAFTS complete must be returned to our factory to have this improvement applied to these machines. No charge is made for applying this improvement other than for the parts used.

Improvement No. 23

BELT SHIFTER MECHANISM FOR MACHINES EQUIPPED WITH SPEED REGULATING ATTACHMENT (SEE ATTACHMENT 9CU)

In effect on machines 3338 and following when equipped with Speed Regulating Attachment.

When applied to your machines fill in the following:

Applied to machines Nos.....

Object: To increase the stroke of the BELT SHIFTER mechanism.

To apply this improvement to machines equipped with Speed Regulating Attachment prior to 3338 requires the following:

BELT-SHIFTER OPERATING BAR	a97E1	1.98
BELT-SHIFTER-OPERATING-BAR CONNECTING ROD group	Xa98E	1.21
BELT-SHIFTER-OPERATING-BAR-CONNECTING-ROD GUIDE group	X99E	.82
BELT-SHIFTER RING	b5E3	5.94
CLUTCH CONTROL SHAFT group	Xa101E	3.30
CLUTCH SHIFTER lever	a105E7	1.98
Price of parts for these machines complete as listed above		**15.23**

In addition to furnishing the above new parts the MAIN STAND must be drilled and tapped for SCREWS 99E2 and the SPRING-BOX CAM a37F5 altered to clear the RULE LEVER 40FF.

For Type-&-Rule Casters this improvement is in effect on machines 3313 and following.

To apply it to prior machines requires the same parts as listed above for composing machines except as follows:

Omit		
BELT-SHIFTER OPERATING BAR	a97E1	
Substitute for the above the following:		
BELT-SHIFTER OPERATING BAR	a97E2	2.11
STARTING BAR	169E1	1.98
Price of parts for Type-&-Rule Casters complete as listed above		**17.34**

Improvement No. 24

IMPROVED SPRING BOX FOR LEAD AND RULE MOLD OPERATING ATTACHMENT

When applied to your machines fill in the following:

Applied to machines Nos.....

Objects: Improved action and to facilitate changing from type casting to strip casting.

To apply this improvement to machines having the earliest form of Lead and Rule Mold Operating Attachment with Spring Box in line with the Mold-blade Operating Bar requires the following (which are part of the present Attachment 11CU):

MOLD-BLADE OPERATING BAR	53B1	3.60
AUXILIARY BRACKET group	X136E	9.39
CENTERING-PIN-CAM-LEVER SHAFT	a15E1	1.58
GUARD group	X137E	.28
OPERATING-BAR LEVER group	X138E	9.00
OPERATING-BAR-LEVER FULCRUM PIN group	X139E	.30

Improved Spring Box for Lead and Rule Mold Operating Attachment—continued

SPRING BOX group	X141E	5.75
SPRING-BOX LEVER (2)	142E1	1.80
SPRING-BOX-LEVER FULCRUM PIN group	X143E	.76
SPRING-BOX-LEVER LINK	144E1	1.80
SPRING-BOX-LEVER-LINK PIN group	X145E	.18
Price of parts for this improvement complete as listed above		**36.24**

Improvement No. 25

CENTERING PIN AND ITS GUIDE FOR TYPE-&-RULE CASTER

In effect complete on Type-&-Rule Casters 4603 and following, in partial effect on prior machines as listed.

When applied to your machines fill in the following:

Applied to machines Nos.....

Object: To prevent CENTERING PIN from turning and from striking the MOLD.

To apply this improvement to machines 4006 to 4602 inclusive, requires the following:

CENTERING PIN extension	a5A6	1.00
" nut..35..	a5A7	.05
" " lock nut..37..	a5A8	.05
" washer (2)..413..	a5A13	.07
Price of parts for these machines complete as listed above		**1.24**

Machines 3924 to 4005 inclusive require in addition to the above the following:

CENTERING PIN	d5AA	*
spring abutment (lower)	a5A11	2.33

*d5AA is assembled with a5A12. Price 4.62

Price of parts for these machines complete as listed above	**8.19**

Machines prior to 3924 require in addition to the above the following:

CENTERING-PIN GUIDE group	X27A	2.02
Price of parts for these machines complete as listed above		**10.21**

Improvement No. 26

MATRIX-HOLDER POSITIONER FOR TYPE-&-RULE CASTER

In effect on machines 4603 and following.

When applied to your machines fill in the following:

Applied to machines Nos.....

Object: To position a MATRIX HOLDER and keep it in fixed position.

To apply this improvement to Type-&-Rule Casters prior to 4603 requires the following:

MATRIX-HOLDER POSITIONER group	X34B	3.74
MATRIX-HOLDER-POSITIONER GUIDE ROD group	Xa35B*	1.35

*This ROD can be used only with the improved MATRIX HOLDER X41A. For the superseded HOLDER Xa39A use ROD X35B. ROD Xa35B was first applied to machines 4884 and following.

MATRIX-JAW-SHOE PACKING BLOCK (left, large)	b9B	1.98
dowel..55..	9B2	.05
screw (top)..220..	a9B3	.10
clamp (lower)	a9B5	.20
" (upper)	a9B6	.13
" screw..231..	a9B7	.08
screw (rear)..221..	a9B8	.08
" (front)..227..	a9B9	.08
CROSS SLIDE	c5CC	11.00
positioner	a5C8	.34
Price of parts complete as listed above		**19.13**

In addition to furnishing the above parts the C AIR-PIN BLOCK and the SHOE 6C must be altered and on machines prior to 4553 the B AIR-PIN BLOCK must also be altered to take the PACKING BLOCK b9B.

Improvement No. 27

MOLD-BLADE SHIFTER FOR TYPE-&-RULE CASTERS

In effect on Type-&-Rule Casters 3966, 4049 and following.

When applied to your machines fill in the following:

Applied to machines Nos.....

Object: To permit the use of Style E Molds on the Type-&-Rule Caster by providing a means for controlling the upper MOLD BLADE to produce type or high or low space material as desired.

To apply this improvement requires the following:

AIR-PIN BLOCK spring post	b3C7	.08

Mold-Blade Shifter for Type-&-Rule Caster—continued

MOLD-BLADE OPERATING ROD fork pin spring	a16C7*	.13
" " " screw (2)..2212..	a16C8	.04

*If improvement No. 7 is also applied this SPRING is not required as it is replaced by c16C7 of that improvement.

MOLD-BLADE SHIFTER group	X26C	4.40
MOLD-BLADE-SHIFTER BELL CRANK	28C1	3.30
MOLD-BLADE-SHIFTER-EXTENSION GUIDE group	X27C	.82
WEDGE COVER group	X24C10	1.12
MOLD-BLADE-CARRIER-LATCH BELL CRANK group	Xa87E	2.20
Price of parts for this improvement complete as listed above		**12.13**

Improvement No. 28

SIXTY PICA DEVICE

In effect on machines 5293 and following.

When applied to your machines fill in the following:

Applied to machines Nos.....

For machines prior to 5293 which were specially equipped with a Wide Measure Attachment (an early form of this improvement) see Note F35.

Object: To increase the measure of the Casting Machine to sixty picas.

To apply this improvement to machines 2404 to 5292 inclusive requires the following:

COLUMN PUSHER	a1FF	*
line support stop (and type guide)	1F1	*.20
" " screw..253..	1F2	*.03
spring post	1F3	*.07
stud (for a1F7)	a1F4	*.07
" cotter..95..	a1F5	*.00
stop pin (for a54F1)	a1F6	*.05
sheave (for Weight Cord)	a1F7	*.45
COLUMN PUSHER group	Xa1F	25.00

*a1FF is assembled with 1F1, 1F2, 1F3, a1F4, a1F5, a1F6 and a1F7. Order by complete symbol Xa1F.

LINE-HOOK OPERATING SLIDE	c23FF	*
friction plunger (2)	a23F12	.07
" " spring (2)..625..	a23F13	.07
pin	a23F7	*.10
LINE-HOOK OPERATING SLIDE group	Xc23F	4.28

*c23FF is assembled with a23F7. Price 4.00

LINE-HOOK-OPERATING-SLIDE SHOE	a24F	2.90
LINE-HOOK-OPERATING-SLIDE SPRING BOX	a27F	2.00
OPERATING-LEVER LATCH group	Xa33F	6.33
OPERATING-LEVER-LATCH STAND	a36F	1.80
RULE	a39FF	*
guide pin	39F1	*.16
" rivet (2)..725..	39F2	*.01
lifting rod	39F3	*.66
" " support	39F8	*
" " " rivet (4)	39F9	*.01

*a39FF is assembled with 39F1, 39F2, 39F3, 39F8 and 39F9. Price 10.50

RULE LEVER	a40FF	*
cam roller	40F1	*.45
" " oil pipe	40F2	*.07
" " pin	40F3	*.40
" " " nut..319..	40F4	*.08
" " " washer..49..	40F5	*.07
RULE LEVER group	Xa40F	9.25

*a40FF is assembled with 40F1 to 40F5 inclusive. Order by complete symbol Xa40F.

STOP SLIDE (for long and short lines)	a44FF§	*
adjusting stand (for column width)	a44F1	4.00
" " bolt	a44F16	.13
" " " bevel nut	44F11§	.13
" " guide bar (for adjusting column width)	a44F2F	†
" " guide bar stop pin	a44F17	*.05
" " plate	44F7	1.98
" " " screw (3)..247..	44F8§	.04
lever	a44F9F	‡
" bolt..132..	b44F10	.08
" bushing	44F12§	.20
" pin	44F14	*.07
pin	44F15§	*.07

*a44FF is assembled with 44F15. Price 3.64

†a44F2F is assembled with a44F17. Price 6.00

‡a44F9F is assembled with 44F14. Price as- 2.00

§Part of the regular machine but also supplied with this improvement.

TYPE CHANNEL PLATE	a49F	6.60
bolt..131..	a49F2	.20

Sixty Pica Device—continued

LINE-HOOK-OPERATING-SLIDE-LATCH FRAME		c53F1F	*
extension		a53F1ε	★.40
" rivet (2)	7173	a53F14	★.04
fulcrum pin (2)		a53F12	.13
spring pin	854	a53F6	★.05

*c53F1F is assembled with a53F6, a53F13 and a53F14. Price 3.00

LINE-SUPPORT PUSHER		a54F1F	*
guide		a54F2	★.34
" rivet	7192	a54F3	★.03

*a54F1F is assembled with a54F2 and a54F3. Price 2.25

LINE-SUPPORT-PUSHER CATCH PLATE		55F1	.34
WEIGHT		66F1	4.00
plug		66F2	.53
rod		66F3F	*
" washer		66F4	★.07
spring (inner)	6147	66F5	.20
spring (outer)	6146	66F6	.26
tube		66F7F	†
" bushing		66F8	★.10
" cap		66F9	.60
WEIGHT group		X66F	6.69

*66F3F is assembled with 66F4. Price .50
†66F7F is assembled with 66F8. Price .60

WEIGHT CORD		68F1	.13
WEIGHT-CORD SHEAVE		131F1	.45
support		131F2	1.50
" clamp screw	233	131F3	.07
" nut	35	131F4	.05
" washer	420	131F5	.04
WEIGHT-CORD SHEAVE group		X131F	2.11

and after a31F to suit.

Machines 2313 to 2403 inclusive require in addition to the above the following:

GALLEY-PAN SHELF adjusting bar		a17F1	.13
GALLEY-PAN SUPPORT		a18F	6.60

Machines 1603 to 2312 inclusive require in addition to the above the following:

GALLEY-PAN SHELF		a17F	11.88

Sixty Pica Device—continued

Machines 520 to 1602 inclusive require in addition to the above the following:

LINE-HOOK-OPERATING-SLIDE LATCH		a53F	.66
stud		a53F8	.08
spring	6111	a53F9	.07

Machines prior to 520 require in addition to the above the following:

GALLEY-PAN SUPPORT			
bar (2)		a18F1	.92
" wing bolt (2)		c18F7F*	

*c18F7F is assembled with a18F9. Price .25

Price of Sixty Pica Improvement complete 130.00

Improvement No. 29

THREE-BURNER GAS BURNER

In effect on machines 5355 and following. In effect on prior machines when equipped with Lead and Rule Mold Operating Attachment. For machines equipped with three-burner Gas Burner prior to Aug. 26, 1918, see Note H36.

When applied to your machines fill in the following:

Applied to machines Nos.

Object: To provide a burner of greater heating capacity, suitable for use with the Lead and Rule Mold.

To apply this improvement to machines not already equipped requires the following:

GAS BURNER (3-burner) complete		Xb55H	30.00

Improvement No. 30

PUMP-TRIP HANDLE

In effect on machines 5503 and following: When applied to your machines fill in the following:

Applied to machines Nos.

Pump-Trip Handle—continued

Object: To provide a positive pump lock.

To apply this improvement to machines prior to 5503 requires the following:

PUMP TRIP handle		a35H12	2.10
MAIN GALLEY STAND stud (stop for a35H12)		a31F7	.45

Price of parts for these machines complete as listed above 2.55

Improvement No. 31

SWING FRAME

In effect on machines 7936 and following. When applied to your machines fill in the following.

Applied to machines Nos.

Object: A more accessible position of the Crank for ease in raising and lowering the Melting Pot.

To apply this improvement No. 31 to machines prior to 7936 requires the following:

SWING FRAME		b37H	*
bushing		a37H11	.38
guide block		37H1	1.26
" " screw (2)	222	37H2	.08
spring pin	883	a37H6	.07
table		a37H12H	*
" bolt (3)	15	a37H13	★.12
worm shaft		a37H14	12.50
" " nut (2)	331	a37H15	.18
" " thrust bearing		a37H16	1.50
SWING-FRAME RACK		a39H	14.00
nut	327	a39H1	.11
sleeve		a39H4	.60
washer (large)		a39H5	1.00
" (small)	45	a39H2	.10
SWING-FRAME-WORM-SHAFT CRANK group		Xb40H	3.75

Price of parts as listed above 101.15

*a37H12H is assembled with b37H and a37H13. Price 65.36

Part VI—Attachments

ATTACHMENTS are for extending the scope of the Composing Machine or the Type-&-Rule Caster (for example, the Display Type Attachment) or for meeting special conditions (for example, the Electric Melting Pot). Each attachment list gives complete the parts comprising it. If changes or improvements have been made in the attachment, reference is made to the same set of "Notes" and "Improvements" as is referred to from the "Main List."

NUMERICAL INDEX OF ATTACHMENTS

9CU DISPLAY TYPE ATTACHMENT, INCLUDING SPEED REGULATING ATTACHMENT
10CU EIGHTEEN-POINT ATTACHMENT
11CU LEAD AND RULE MOLD OPERATING ATTACHMENT
12CU AUTOMATIC CUTTER
13CU PIECE LEAD MOLD (Style LF) OPERATING ATTACHMENT
15CU BORDER ATTACHMENT
16CU ELECTRIC MELTING POT
18CU SHORT TYPE ATTACHMENT
19CU COMPOSITION MATRIX SORTS CASTING (Type-&-Rule Caster)
20CU 3U MOLD (Cored) OPERATING ATTACHMENT
21CU ENGLISH DISPLAY COMPOSITION EQUIPMENT
22CU ENGLISH DISPLAY EQUIPMENT
24CU KEROSENE (Coal Oil) AND GASOLINE BURNER

Attachment 9CU

DISPLAY TYPE ATTACHMENT, INCLUDING SPEED REGULATING ATTACHMENT

When applied to your machines fill in the following:

Applied to machines Nos.

Object: To provide for casting the larger sizes (above twelve-point) as sorts: also required for composition above twelve-point and for lead and rule casting.

When this improvement is applied the Cam Oiling Device (Improvement No. 21) must be applied if not already on the machine.

This Attachment 9CU can be classed in two parts: (A) all parts except the Speed Regulating Attachment, (B) the Speed Regulating Attachment. Certain early attachments had in place of Part B a set of cone pulleys for speed regulation; these cone pulleys are obsolete and as nearly all of them have been replaced by the improved parts they will not be listed here. Should repair parts be required for these cone pulleys communicate with our main office in Philadelphia.

Part A of Attachment 9CU

DISPLAY TYPE ATTACHMENT (EXCEPT SPEED REGULATING ATTACHMENT)

To apply Part A requires the following:

(For machines equipped with Display Type Attachment prior to 2942 see Note E45)

Normal-wedge-locking-pin Lifting Handle		a14B12	.28

(For machines equipped with Display Type Attachment prior to 2997 see Note D11)

Mold-blade-abutment-slide-abutment-screw Packing Piece		32C1	1.98
Justiffication Wedge		a11D1	6.60
Regrinding and testing worn JUSTIFICATION WEDGE		3.25	
Justification-wedge Gage		a69D1	1.75

(For machines equipped with Display Type Attachment prior to 2997 see Note D11)

Normal Wedge		b21D1D	*
handle		b21D2	★.26
NORMAL WEDGE group		Xa21D1	9.50

*b21D1D is assembled with a21D2. Order by complete symbol Xa21D1.

Normal-wedge Gage		70D1	

(70D1 is superseded by a69D1 which combines the former Gages 69D1 and 70D1)

(For machines equipped with Display Type Attachment prior to 2942 see Note E45)

Centering-pin-lever Gag Block		a140E1E	*
pin		a140E2	★.05
spring	6136	140E3	.07
stud		140E4	.20
" nut	35	140E5	.05
CENTERING-PIN-LEVER GAG BLOCK group		X140E	2.96

*a140E1E is assembled with a140E2. Price is 2.64

Mold-blade-cam Lever		a44E6E	*
compound lever		b44E7	2.64
" " locking screw		a44E8	.47
" " " " collar		b44E9	.13
" " stud		a44E10	.53
" " " nut	322	a44E11	.10
roller		44E4	★.50
" pin		44E5	★.20
MOLD-BLADE-CAM LEVER group		Xa44E6	19.05

*a44E6E is assembled with 44E4 and 44E5. Price 15.18

Display Type Attachment (Except Speed Regulating Attachment)—continued

Mold-blade-cam-lever-compound-lever Abutment		96E1	1.00
nut	319	96E2	.08
washer	49	96E3	.07
MOLD-BLADE-CAM-LEVER-COMPOUND-LEVER ABUTMENT group		X96E	1.15

Type Channel Block (adjustable) (curved channel)		50F	★3.30
clamp		a50F14F	*
" latch		a50F15	★1.50
" " pin (3)	7116	50F3	★.04
" spring	650	50F4	★.07
" tongue		50F5	*
" " rivet (3)	7180	a50F16	★.01
" type guide		a50F17	*
stop plate		50F9	★.07
" " screw (2)	250	50F10	★.04
TYPE CHANNEL BLOCK group		Xb50F	18.00

*a50F14F is assembled with 50F, 50F3, 50F4, 50F5, 50F9, 50F10, a50F15, a50F16 and a50F17. Order by complete symbol Xb50F.

NOTE: The regular BOLT 50F6 and WASHER 50F7 are used with this TYPE CHANNEL BLOCK but are not included as part of the complete BLOCK since they are part of the standard equipment on every machine.

Type Channel Block (fixed)		a51F10F	*
latch		a51F11	★.20
" screw (2)	260	a51F12	★.03
screw (rear)	231	a51F13	.08
TYPE CHANNEL BLOCK group		X51F10	3.75

*a51F10F is assembled with a51F11 and a51F12. Price 3.67

NOTE: The regular SCREW 51F5 is used with this TYPE CHANNEL BLOCK but is not included as part of the complete BLOCK since it is part of the standard equipment on every machine.

Latch		57H1H	*
plate		57H2	★.34
" screw (2)	244	57H3	★.05
LATCH group		X57H	3.08

*57H1H is assembled with 57H2 and 57H3. Order by complete symbol X57H.

Latch Abutment		58H1H	*
plate		58H2	★.34
" screw (2)	244	58H3	★.05
LATCH ABUTMENT group		X58H	3.08

*58H1H is assembled with 58H2 and 58H3. Order by complete symbol X58H.

Latch-abutment Spring	6107	59H1	.16

Latch Pin		60H1H	*
cotter	96	60H2	.00
plate		60H3	*
" spring pin	890	60H4	★.07
" stop pin		60H5	★.07
LATCH PIN group		X60H	2.64

*60H1H is assembled with 60H3, 60H4 and 60H5. Price 2.64

Display Type Attachment (Except Speed Regulating Attachment)—continued

Latch Spring ..... 6101.. **61H1 .07**

Latch Stand 62H1 1.00
shaft ..... 62H2 *
" arm ..... 62H3 *
" nut ..... 327.. 62H4 .11
" " lock nut ..... 391.. 62H5 .11
" spring ..... 6106.. 62H6 .13
spring pin (for 59H1) ..... 892.. 62H7 .07
LATCH STAND group **X62H 4.40**
*62H2H is assembled with 62H3. Price 2.98

Nozzle (1-2") (for Display Type) a14H2 1.00

(For machines equipped with special 1 1-16" Pump Body see Note H32)

Piston (for Display Type) a17H5 3.25
handle ..... 17H1H *
" stem ..... 850.. 17H2 *
" " nut ..... 314.. 17H3 *
PISTON group **X17H5 3.75**
*17H1H is assembled with 17H2 and 17H3. Price ..... .50

For use with worn Pump Bodies order:

Piston (for Display Type) (.003" oversize) . a17H6 3.25
handle ..... 17H1H *
" stem ..... 17H2 *
" " nut ..... 314.. 17H3 *
PISTON group (.003" oversize) **X17H6 3.75**
*17H1H is assembled with 17H2 and 17H3. Price ..... .50

Piston-operating-rod Crosshead
stud ..... a19H5 .26
" nut ..... 314.. a19H6 .07
" " lock nut ..... 315.. a19H7 07

Pump-body-spring-rod Stop Block ..... 63H1H *
spring post ..... 840.. 63H2 *.04
stud ..... 63H3 .34
*63H1H is assembled with 63H2. Price 1.32

Pump-body-spring-rod-stop-block Spring ..... 623.. **64H1 .11**

Swing-frame Post
spring post (for 64H1) ..... 894.. **a38H6 .13**

Machines prior to 4910 require in addition to the above the following:
Piston-operating-rod Crosshead (upper)': **a19H3 4.62**

Machines prior to 4533 require in addition to the above the following:
Pump-body-spring-rod Crosshead
eye ..... **a31H3 .86**

Machines prior to 4493 require in addition to the above the following:
Piston Spring
rod eye ..... a20H2 .73
washer ..... 46.. a20H6 .07

For machines prior to 4493, whether equipped with Display Type Attachment or not, these two parts must be furnished together when ordered for the first time (see Note H14).

Machines prior to 4248 require in addition to the above the following:
Pump-body-spring-rod Stop Block
stud washer ..... **63H4 .13**

Machines prior to 1593 require in addition to the above the following:
Pump-body Lifting Spring ..... 6108.. a27H .26
plate (lower) ..... a27H2 .08

Machines 503 and following when not equipped with Low Quad Device require in addition to the above the following:
Centering-pin Auxiliary Spring (2).. 62.. 36A1 .11
abutment (lower) ..... a36A2A *
" (upper) a36A3 3.64
" stud (2) ..... 36A4 *.13
" " nut (2) ..... 35.. 36A5 .05
" " washer (2) ..... 419.. 36A6 .04
CENTERING-PIN AUXILIARY SPRING group .. **Xa36A 7.94**
*a36A2A is assembled with 36A4. Price 3.90

Machines 503 to 1103 inclusive not equipped with the Low Quad Device require in addition to the above the following:
Centering-pin Abutment (lower) ..... a5A4 .47
(upper) ..... a5A5 .92

Machines prior to 503 when not equipped with Low Quad Device were formerly equipped with the following instead of Xa36A and a5A4:
Centering-pin Abutment (lower) **a5A14**

Centering-pin Auxiliary Spring (2).. 62.. 36A1 .11
" (upper) 36A3 3.30
" stud (2) ..... 36A4 *.13
" " nut (2) ..... 35.. 36A5 .05
" " washer (2) ..... 419.. 36A6 .04
CENTERING-PIN AUXILIARY SPRING group .. **X36A**
*36A2A was assembled with 36A4.

These parts are obsolete and will no longer be furnished complete; order instead Xa36A, a5A4 and a5A5.

In addition to furnishing the above new parts the following alterations must be made: On machines prior to 3026 clearance must be cut in CROSS-SLIDE GUIDE 7C for PACKING PIECE 32C1; on machines prior to 964 the MAIN STAND 36EE must be drilled and faced for ABUTMENT 96E1; on machines prior to 908 the SWING-FRAME POST 38H must be drilled for STUD 63H3 and drilled and tapped for SPRING POST a38H6.

Part B of Attachment 9CU

SPEED REGULATING ATTACHMENT

To apply Part B requires the following:

(For machines with Motor on Cam Shaft side or equipped with the superseded Cone Pulleys see Note E46)

Belt Shifter Arm a3E5 1.32
clamp ..... a3E6 .26
" bolt ..... 112.. a3E7 .11
set screw ..... 116.. 3E1 .10
BELT SHIFTER ARM group **X3E5 1.79**

(For machines equipped with Display Type Attachment prior to machine 3338—September, 1911—see Note E47)

Belt Shifter Operating Bar **a97E1 1.98**

(For machines equipped with Display Type Attachment prior to machine 3338—September, 1911—see Note E48).

Belt-shifter-operating-bar Connecting Rod a98E1 1.00
cotter (2) ..... 96.. 98E2 .00
washer (3) ..... 412.. 98E3 .07
BELT-SHIFTER-OPERATING-BAR CONNECTING ROD group **Xa98E 1.21**

(For machines equipped with Display Type Attachment prior to machine 3338—September, 1911—see Note E49)

Belt-shifter-operating-bar-connecting-rod Guide ..... 99E1 .66
screw (2) ..... 223.. 99E2 .08
BELT-SHIFTER-OPERATING-BAR-CONNECTING-ROD GUIDE group ..... **X99E .82**

Belt-shifter-operating-bar Lever 100E1 1.32
bracket 100E2 1.32
" clamp screw ..... 213.. 100E3 .10
pin ..... 100E4 .07
" cotter (2) ..... 95.. 100E5 .00
stud ..... 100E6 .20
" nut ..... 314.. 100E7 .07
BELT-SHIFTER-OPERATING-BAR LEVER group **X100E 3.08**

(For machines equipped with Display Type Attachment prior to machine 3338—September, 1911—see Note E50)

Belt-shifter Ring b5E3 5.94
pin ..... 5E2* .20
BELT-SHIFTER RING group **Xb5E3 6.14**
*Part of the regular machine but furnished as part of this attachment.

Belt-shifter-ring Rod a6E3 1.19
fiber washer ..... 6E1* .07
nut ..... 329.. a6E4 .14
spring ..... 620.. 6E2* .60
BELT-SHIFTER-RING ROD group **X6E3 2.00**
*Part of the regular machine and therefore not furnished as part of this attachment.

(For machines equipped with Display Type Attachment prior to machine 3338—September, 1911—see Note E51)

Clutch Control Shaft ..... a101E1E *
bell crank ..... 101E2 *
" " dowel ..... 58.. 101E3 *.04
lever ..... a101E4 *
" dowel ..... 58.. 101E5 *.04
CLUTCH CONTROL SHAFT group **Xa101E 3.30**
*a101E1E is assembled with 101E2, 101E3, a101E4 and 101E5. Order by complete symbol Xa101E.

Clutch Control Operating Rod ..... 102E1 .66
eye ..... 102E2 .79
nut ..... 314.. 102E3 .07
CLUTCH CONTROL OPERATING ROD group **X102E 1.52**

Clutch-control-operating-rod-eye Pin ... 103E1E *
spring ..... 103E2 *.13
CLUTCH-CONTROL-OPERATING-ROD-EYE PIN group ..... **X103E .66**
*103E1E is assembled with 103E2. Order by complete symbol X103E.

Clutch Gear **104E1 9.92**

(For machines equipped with Display Type Attachment prior to machine 3338—September, 1911—see Note E52)

Clutch Shifter ..... 105E1E *
guide rod (long) ..... 105E2 *.20
" " (short) ..... 105E3 *.13
plate ..... 105E4 *
" fulcrum pin (for a105E7) ..... 105E5 *.07
" " " cotter ..... 96.. 105E6 .00
" lever (for engaging b5E3) a105E7 1.98
" rivet (2) ..... 7178.. 105E8 *.04
spring pin ..... 880.. 105E9 *.07
CLUTCH SHIFTER group **Xa105E 5.94**
*105E1E is assembled with 105E2 to 105E5 inclusive, 105E8 and 105E9. Price.. 3.96

(For machines equipped with Speed Regulating Attachment prior to machine 3085 see Note E62)

Clutch-shifter Spring ..... 628.. a106E1 .16
plate (2) ..... a106E2 .04
CLUTCH SHIFTER-SPRING group ..... **X106E .24**

Gear Cover (rear) 107E1 4.62
screw (2) ..... 223.. 107E2 .08
GEAR COVER group **X107E 4.78**

Interlocking Lever ..... 108E1E *
spring pin ..... 851.. 108E2 *.05
INTERLOCKING LEVER group **X108E 6.60**
*108E1E is assembled with 108E2. Order by complete symbol X108E.

Speed Regulating Attachment—contniued

(For machines equipped with Display Type Attachment prior to machine 4674 see Note E44)

Interlocking-lever Operating Rod ..... a109E1 .66
eye ..... a109E2E *
" pin ..... a109E3 *.07
" " cotter ..... 95.. 109E4 .00
" " washer ..... 412.. a109E6 .07
lock nut ..... 314.. 109E5 .07
INTERLOCKING-LEVER OPERATING ROD group **X109E 1.80**
*a109E2E is assembled with a109E3. Price 1.00

Interlocking-lever-operating-rod Guide . 110E1 1.00
nut ..... 319.. 110E2 .08
INTERLOCKING-LEVER-OPERATING-ROD GUIDE group **X110E 1.08**

Interlocking-lever Spring ..... 623.. **111E1 .11**

Interlocking-lever Fulcrum Stud ..... **112E1 .66**

(For machines equipped with Speed Regulating Attachment prior to machine 4208 see Note E37)

Pulley (loose) ..... b65E2E† *
pin ..... a65E3† *.07
PULLEY group ..... **Xa65E2† 7.26**
*b65E2E is assembled with a65E3. Order by complete symbol Xa65E2.
†For machines 3320 and following the PIN a65E3 alone is required, without the PULLEY, because the regular PULLEY X65E on these machines is drilled for this PIN a65E3 and when the PIN is driven into this PULLEY the PULLEY becomes Xa65E2.

Sliding Gear **117E1 13.20**

Sliding-gear Shifter **118E1 4.62**

Sliding-gear-shifter Yoke ..... 119E1E *
handle 119E2 1.00
" spring ..... 64.. 119E3 .11
post ..... 119E4 *.20
" nut ..... 35.. 119E5 .05
" washer ..... 446.. 119E6 .07
SLIDING-GEAR-SHIFTER YOKE group **X119E 3.21**
*119E1E is assembled with 119E4. Price is 1.98

Sliding-gear Hollow Shaft ..... 120E1E *
bushing ..... 120E2 *
plug (wood) ..... 120E3 *.13
SLIDING-GEAR HOLLOW SHAFT group **X120E 5.28**
*120E1E is assembled with 120E2 and 120E3. Order by complete symbol X120E.

Sliding-gear Safety Lever 121E1 1.98
rod (2) ..... 121E2 .66
" hanger 121E3 1.00
" nut (4) ..... 319.. 121E4 .08
SLIDING-GEAR SAFETY LEVER group **X121E 4.62**

(For machines equipped with Display Type Attachment prior to machine 4313 see Note E53)

Speed Bracket ..... 122E1E *
cap (front for 123E1) ..... 122E2 *
" (center for 123E1) ..... 122E3 *
" (rear for 123E1) ..... 122E4 *
" (front for 124E1) ..... 122E5 *
" (rear for 124E1) ..... 122E6 *
" (front for 125E1) ..... 122E7 *
" (rear for 125E1) ..... 122E8 *
" (front for 120E1) ..... 122E9 *
" (rear for 120E1) ..... 122E10 *
" screw (for 122E2 to 122E10 inclusive) (19) ..... 28.. 122E11 *.11
" (for 131E7) ..... 122E12 *
" screw (for 122E12) (3) ..... 27.. 122E13 *.11
guide post (for 101E2) ..... 122E14 .13
" " nut ..... 310.. 122E15 .07
" " " lock nut ..... 312.. 122E16 .07
" " spring ..... 6154.. 122E17 .11
" " washer (2) ..... 413.. 122E18 .07
oil pipe cover base (2) ..... a122E19 .53
" hole cover (2) ..... 122E20 .07
" " " screw (4) ..... a122E21 .05
" pipe (to 118E1 and 121E3) (2) ..... 122E22 *.04
" " (" rear bearing for 125E1) ..... 122E23 *.14
" " (" front " " 125E1) ..... 122E24 *.18
" " (" rear " " 120E1) ..... 122E25 *.13
" " (" " " " 123E1) ..... 122E26 *.05
" " (" middle " " 123E1) ..... 122E27 *.05
" " (" front " " 120E1) ..... 122E28 *.13
" " (" rear " " 124E1) ..... 122E29 *.16
pin (to 120E1 and 120E2) ..... 122E30 *.03
spring post (for X106E) ..... 891.. 122E31 *.07
" " (" 111E1) ..... 855.. 122E32 *.05
tumbler housing ..... 122E33 *
" " screw (4) ..... 28.. 122E34 *.11
" " stop plate 122E35 *1.66
" " " " rivet (2) 7179.. 122E36 *.03
winkley oiler (5) ..... 122E37 .20
SPEED BRACKET group **X122E 134.92**
*122E1E is assembled with 122E2 to 122E13 inclusive, 122E22 to 122E36 inclusive. Price is 132.00

Speed-bracket Cone Shaft ..... 123E1■ 9.90
cone gear (small) ..... 123E2■ 3.64
" " (medium) ..... 123E3■ 3.96
" " (large) ..... 123E4■ 4.30
gear (large) ..... 123E5■ 4.62
key (long) (for 123E2 to 123E5 inclusive) . 123E6■ .07
" (short) (for 123E8) ..... 123E7■ .07
pinion (long) ..... 123E8■ 5.94
SPEED-BRACKET CONE SHAFT group **X123E 32.50**
■Parts replaced only in our factory.

Speed-bracket Driving Shaft (front) ..... 124E1■ 6.60
gear (large, middle) ..... 124E2■ 3.96
key (for 124E2 and 124E5) (2) ..... 124E3■ .07
" (for 124E6) ..... 124E4■ .07
pinion (long, front) ..... 124E5■ 5.94
" (small, rear) ..... 124E6■ 3.64
SPEED-BRACKET DRIVING SHAFT group **X124E 20.35**
arts replaced only in our factory.

Speed Regulating Attachment—continued

Speed-bracket Driving Shaft (rear) ..... 125E1■ 3.96
gear (medium, middle) ..... 125E2■ 4.62
" (large, rear) ..... 125E3■ 8.58
key (3) ..... 125E4■ .07
pinion (small, front) ..... 125E5■ 3.64
SPEED-BRACKET DRIVING SHAFT group....**X125E 21.01**
■Parts replaced only in our factory.

Speed-bracket Quadrant..... **126E1 5.28**

Speed-bracket-quadrant Bolt (2) each
.....**110**.. **127E1 .11**

Speed-bracket-quadrant-bolt Nut (2) each.....**314**.. **128E1 .07**

Speed-bracket-quadrant Shaft..... 129E1■ 1.98
key ..... 129E2■ .07
lever ..... 129E3E *
" handle ..... 129E4 *.66
" " pin ..... 129E5 *.34
" " spring .....**64**.. 129E6 *.11
" set screw (2) .....**139**.. 129E7 *.08
pinion ..... 129E8■ 3.43
SPEED-BRACKET-QUADRANT SHAFT group...**X129E 8.78**
*129E3E is assembled with 129E4, 129E5, 129E6 and 129E7. Price assembled. 3.30
■Parts replaced only in our factory.

Speed-bracket Screw (long, to a12EE) **2217**.. **130E1 .13**

NOTE: When the Speed Regulating Attachment is applied to a machine already equipped with the Cam Oiling Device (Improvement No. 21), order the following additional parts:
screw (short, to 115E2 and 115E3) (6) **27**.. 130E2 .11

Speed-bracket Sliding Shaft..... 131E1■ 6.60
gear (large, middle) ..... 131E2■ 4.62
" (medium, rear) ..... 131E3■ 3.96
key (3) ..... 131E4■ .07
nut.....**330**.. 131E5 .18
pinion (small, front) ..... 131E6■ 3.64
rack..... 131E7 6.60
washer.....**444**.. 131E8 .13
SPEED-BRACKET SLIDING SHAFT group....**X131E 25.94**
■Parts replaced only in our factory.

(For machines equipped with Display Type Attachment prior to machine 3596 see Note E54)
Speed Index Plate.....a132E1 .66
bracket..... 132E2E *
" pin (2)..... 132E3 *.07
screw (6).....**251**.. 132E4 .04
SPEED INDEX PLATE group.....**X132E 1.90**
*132E2E is assembled with 132E3. Price, 1.00

Tumbler..... 133E1E■ *
idler..... 133E2■ 3.96
" shaft..... 133E3■ .66
latch..... 133E4E †
" fulcrum pin..... 133E5 .07
" " " cotter (2).....**95**.. 133E6 .00
" spring.....**6153**.. 133E7 .11
" stop pin..... 133E8 *.07
oil pipe (front)..... 133E9 *.20
" " (rear)..... 133E10 *.20
" " clamp..... 133E11 *.05
" " " screw.....**246**.. 133E12 *.04
pinion..... 133E13■ 5.94
" shaft (also fulcrum for 133E1E).... 133E14■ 1.98
TUMBLER group.....**X133E 27.18**
*133E1E is assembled with 133E9 to 133E12 inclusive. Price..... 12.48
†133E4E is assembled with 133E8. Price, 1.98
■Parts replaced only in our factory.

(For machines equipped with Speed Regulating Attachment prior to machine 3085 see Note F25)
Operating-lever Spring Box..... a37F4F *
cam..... a37F5 *
dowel (stop for 37F1).....**58**.. 37F2 *.04
plunger..... 37F1 *.60
spring.....**6163**.. a37F6 *.13
OPERATING-LEVER SPRING BOX group.....**X37F4 4.73**
*a37F4F is assembled with 37F1, 37F2, a37F5 and a37F6. Order by complete symbol X37F4.

Machines prior to 4009 require in addition to the above the following:

Belt Shifter Eye..... **4E 1.66**

This is now the regular EYE and is the same as the regular EYE on prior machines except that its shank has been lengthened to suit the Speed Regulating Attachment.

In addition to furnishing the above new parts the GALLEY-CAM STAND 16F must be drilled for the GUIDE X110E.

Attachment 10CU
EIGHTEEN-POINT ATTACHMENT

When applied to your machines fill in the following:

Applied to machines Nos.....

Object: To produce fourteen and eighteen-point composition on the Casting Machine from a ribbon perforated by the Keyboard.

When this Attachment is applied the Display Type Attachment (Attachment 9CU) must be applied at the same time, if not already on the machine.

When this Attachment is applied it is advisable also to apply the Sixty Pica Device (Improvement No. 28) at the same time, if it is not already on the machine.

This Attachment consists of the following parts. It must be applied in our factory, and where standard parts can be altered to form the new parts this will be done.

Eighteen-Point Attachment—continued

Centering-pin Spring.....**6167**.. **a18A3 .16**

Matrix Case..... 38A1A *
bar (plain)..... 38A2 *.07
comb (for .3″ x .3″ Matrices) (2)..... 38A3 *100
" (for .3″ x .2″ Matrices) (6)..... 38A4 *1.00
cover plate..... 38A5 *4.50
" " screw (4).....**2237**.. 38A6 *.03
shoe (2)..... 38A7 *
" rivet (16).....**7171**.. 38A8 *.01
spacing comb (right for .3″ x .3″ Matrices) 38A9 *2.00
" " (left, for .3″ x .2″ Matrices) 38A10 *2.00
" " (front and rear) (2)..... 38A11 *1.50
MATRIX CASE group.....**X38A 30.00**
*38A1A is assembled with 38A2 to 38A11 inclusive. Order by complete symbol X38A.
For S62 Arrangement the COVER PLATE a38A12 will be substituted for the COVER PLATE 38A5 at the same price.

(For machines equipped with Eighteen-point Attachment prior to machine 4957 see Note B25)
Locking Bar (auxiliary) (front)..... 37B1 2.64
bracket..... a37B2 19.80
" lever..... 37B3B *
" " dog..... 37B4 *.66
" " " roller..... 37B5 *.07
" " " " rivet.....**7161**.. 37B6 *.01
" " " pin..... 37B7 *.07
" " fulcrum pin..... 37B8 .20
" " " " nut.....**35**.. 37B9 .05
" patent plate..... a37B10 .20
" " " screw (2).....**251**.. a37B11 .04
" plate (abutment for 37B30)..... 37B12 1.32
" " screw (3).....**247**.. 37B13 .04
" " (cover for 37B1)..... 37B14 4.62
" " dowel (2).....**534**.. 37B15 .05
" " pin (stop for 37B3) (2)**7140**.. 37B16 .01
" " screw (2).....**222**.. 37B17 .08
" " " (2).....**220**.. 37B18 .10
" " " nut (2).....**310**.. 37B19 .07
" " (for b12B8)..... 37B20 .34
" " screw (2).....**2212**.. 37B21 .04
operating lever..... 37B23 1.98
" " fulcrum pin..... 37B22 .20
" " " " nut.....**310**.. 37B24 .07
" " pin..... 37B25 .07
" " " cotter (2).....**95**.. 37B26 .00
piston..... 37B27 2.64
" rod..... 37B28 .66
" " nut.....**310**.. 37B29 .07
" " spring.....**65**.. 37B30 .12
" " washer..... 37B31 .20
LOCKING BAR group.....**Xa37B 38.40**
*37B3B is assembled with 37B4 to 37B7 inclusive. Price..... 2.32
For machines equipped with S62 arrangement substitute LEVER a37B32B. LEVER a37B32B is assembled with ROLLER 37B5, RIVET 37B6, PIN 37B7 and DOG a37B33. Price..... 2.32

Locking-bar-bracket Dowel (2).....**531**.. **38B1 .05**

Locking-bar-bracket-lever Rod..... 39B1B *
collar..... 39B2 *
" rivet.....**7139**.. 39B3 *.01
eye..... 39B4 .34
" lock nut.....**35**.. 39B5 .05
" pin..... 39B6 .07
" " cotter (2).....**95**.. 39B7 .00
LOCKING-BAR-BRACKET-LEVER ROD group...**X39B 1.12**
*39B1B is assembled with 39B2 and 39B3. Price..... .66

Locking-bar-bracket Screw (4).....**214**.. **40B1 .10**

Matrix-jaw Shoe..... **a8B3*** **2.98**
*The standard SHOE 8B may be altered to make it a8B3.

(For machines equipped with Eighteen-point Attachment prior to machine 4553 see Note B6)
Matrix-jaw-shoe Packing Block (left, large)..... **b9B10*** **1.98**
*The standard BLOCK b9B may be altered to make it b9B10.

Matrix-jaw-shoe Packing Block (left, small)..... **a10B1*** **.47**
*The standard BLOCK may be altered to make it a10B1.

Matrix-Jaw Stop Rack (front)..... b12B8B *
lug..... b12B2 *
pin..... a12B5 *
plug..... b12B6 *
spring.....**6194**.. b12B7 *.08
" abutment (left)..... a12B3 *
" " (right)..... b12B4 *
MATRIX-JAW STOP RACK group.....**Xb12B8 15.84**
*b12B8B is assembled with b12B2, a12B3, b12B4, a12B5, b12B6, and b12B7.
Order by complete symbol Xb12B8.
NOTE: We cannot furnish separate parts of this STOP RACK except the SPRING b12B7; instead we exchange repaired STOP RACKS for broken STOP RACKS. Price of exchange (when the main piece b12B8 is not broken), $4.00. If the main piece b12B8 is broken the price for exchange will be determined after examination of the parts.

Matrix-jaw-stop-rack Locking Bar, see Note B26 for machines equipped with Eighteen-point Attachment prior to machine 4415 Xc13B

Eighteen-Point Attachment—continued

(For machines equipped with Eighteen-point Attachment prior to machine 4415 see Note C20)
Locking Bar (auxiliary) (rear)..... 33C1 2.64
bracket..... a33C2 15.84
" cap (cover for 33C1)..... 33C3 3.30
" " screw (4).....**233**.. 33C4 .07
nut.....**310**.. 33C5 .07
piston..... 33C6 2.64
" cylinder..... 33C7 3.96
" " screw (4).....**227**.. 33C8 .08
spring.....**65**.. 33C9 .12
washer..... 33C10 .20
LOCKING BAR group.....**Xa33C 29.37**

Locking-bar-bracket Screw.....**227**.. 34C1 **.08**

Locking-bar-bracket Stud (2)..... 35C1 .11
nut (2).....**310**.. 35C2 .07
LOCKING-BAR-BRACKET STUD group (2) (each).....**X35C .18**

(For machines equipped with Eighteen-point Attachment prior to machine 4415 see Note C18)
Matrix-jaw Stop Rack..... d12C8C *
lug..... b12C2 *
pin..... a12C5 *
plug..... b12C6 *
spring.....**6194**.. b12C7 *.08
" abutment (rear)..... a12C3 *
" " (front)..... b12C4 *
MATRIX-JAW STOP RACK group.....**Xd12C8 15.84**
*d12C8C is assembled with b12C2, a12C3, b12C4, a12C5, b12C6 and b12B7.

Order by complete symbol Xd12C8.
NOTE: We cannot furnish separate parts of this STOP RACK except the SPRING b12C7; instead we exchange repaired STOP RACKS for broken STOP RACKS. Price for exchange (when the main piece d12C8 is not broken), $4.00. If the main piece d12C8 is broken the price for exchange will be determined after examination of the parts.

Matrix-jaw-stop-rack Locking Bar, see Note C19 for machines equipped with Eighteen-point Attachment prior to machine 4415. X13C12

Justification Wedge (front) (.0100″)..... **a10D1 6.60**
Regrinding and testing worn JUSTIFICATION WEDGE..... 3.25

Justification Wedge (rear) (.0010″)..... **a11D2 6.60**
Regrinding and testing worn JUSTIFICATION WEDGE..... 3.25

Space Transfer Wedge..... a52D 4.62
adjusting screw..... 52D1 1.00
" " lock nut..... 52D2 .07
SPACE TRANSFER WEDGE group.....**X52D 5.69**
NOTE: This is the same as the regular SPACE TRANSFER WEDGE used for composition from 5- to 12-point but is furnished as a part of the Eighteen-point Attachment to avoid changing the setting of the WEDGE regularly used for 5- to 12-point composition. This extra WEDGE should be kept adjusted for 18-point composition.

Air Pipe (to 155E1)
(1-8″ x 8 1-8″) (2)..... 151E1 .22
(1-8″ x 2 3-4″)..... 151E2 .20
nipple (1-8″ x 1 3-8″) (2)..... 151E3 .13
elbow (1-8″) (2)..... 151E4 .20
pet cock (1-8″, male and female ends)..... 151E5 .79
tee (1-8″)..... 151E6 .07
union (1-8″) (female end)..... 151E7E *
" (1-8″) (male end)..... 151E8 *
" nut (for 1-8″ union)..... 151E9 *
AIR PIPE group.....**X151E 2.50**
*151E7E is assembled with 151E8 and 151E9. Price..... .34

Air Pipe (155E1 to 37B2)
(1-4″ O.D. x 7 5-8″)..... 152E1 1.00
nipple (1-4″ O.D. x 13-16″) (2)..... 152E2 .16
union (female end) (for 1-4″ O.D. pipe) (2) 152E3 .07
" (male end) (for 1-4″ O.D. pipe) (2). 152E4 .07
" nut (for 1-4″ O.D. pipe) (2)..... 152E5 .13
AIR PIPE group.....**X152E 1.86**

Air Pipe
(1-4″ O.D. x 2″)..... 153E1 .20
(1-4″ O.D. x 35 1-8″)..... 153E2 1.98
(1-4″ O.D. x 2 7-16″)..... 153E3 .26
union (female end) (for 1-4″ O.D. pipe) (2) 153E4 .07
" (male end) (for 1-4″ O.D. pipe) (2) . 153E5 .07
" nut (for 1-4″ O.D. pipe) (2)..... 153E6 .13
AIR PIPE group.....**X153E 2.98**

Air Pipe
(1-4″ O.D. x 2″)..... 154E1 .20
(1-4″ O.D. x 35 1-2″)..... 154E2 1.98
nipple (1-4″ O.D. x 7-8″)..... 154E3 .16
(1-4″ O.D. x 2 7-16″)..... 154E4 .26
(1-4″ O.D. x 16 5-8″)..... 154E5 .66
(1-4″ O.D. x 3 1-16″)..... 154E6 .34
tee (special for 1-4″ O.D. pipe)..... 154E7 1.98
union (female end) (for 1-4″ O.D. pipe) (3) 154E8 .07
" (male end) (for 1-4″ O.D. pipe) (3). 154E9 .07
" nut (for 1-4″ O.D. pipe) (3)..... 154E10 .13
AIR PIPE group.....**X154E 6.39**

(For machines equipped with Eighteen-point Attachment prior to machine A4154—November, 1914—see Note E57)
Air Supply Bracket.....a155E1E *
bell crank (large)..... a155E2 2.64
" " adjusting screw.....**255**.. 155E3 .04
" " " " lock nut..**310**.. 155E4 .07
" " (small)..... 155E5E †
" " fulcrum pin..... 155E6 .13
" " " " cotter (2).....**96**.. 155E7 .00
" " spring.....**6120**.. 155E8 .07
" " " pin..... 155E9 *.05

Air Supply Bracket—continued

cap		155E10	1.98
" lever		155E11	.66
" " fulcrum pin		155E12	.07
" " " " cotter (2)	95..	155E13	.00
" piston		155E14	.34
cap screw (4)	233..	155E15	.07
piston (for 155E1)		a155E16	.79
plug		155E17	.53
plunger (2)		155E18	.66
spring pin		155E19	★.05
AIR SUPPLY BRACKET group		X155E	26.84

*a155E1E is assembled with 155E19. Price 15.89

†155E5E is assembled with 155E9. Price is 2.03

Air-supply-bracket Screw (4)	2198..	156E1	.08
Cam-lever-shaft Stand		a9E2	26.40

*The regular STAND a9E will be altered instead of supplying a new Stand for existing machines.

(For machines equipped with Eighteen-point Attachment prior to machine 4415 see Note E55)

Locking-bar Bell Crank (lower)		a28E4E	*
spring post	832..	28E1	★.07
LOCKING-BAR BELL CRANK group		X28E4	3.64

*a28E4E is assembled with 28E1. Order by complete symbol X28E4.

(For machines equipped with Eighteen-point Attachment prior to machine 4415 see Note E56)

Locking-bar Bell Crank (upper)		a29E3E	*
spring post	832..	29E1	★.07
LOCKING-BAR BELL CRANK group		X29E3	3.64

*a29E3E is assembled with 29E1. Order by complete symbol X29E3.

Locking-bar-bell-crank Spring (2)	6171..	a30E	.26
plate (4)		a30E1	.04
LOCKING-BAR-BELL-CRANK SPRING group (2) (each)		Xa30E	.34
Locking-bar-bell-crank-spring Post (in a36EE)		31E	.07
Locking Piston (for d13B)		157E1	2.64
Locking-piston Bar		158E1E	*
pin		158E2	*
LOCKING-PISTON BAR group		X158E	.66

*158E1E is assembled with 158E2. Order by complete symbol X158E.

Locking-piston-bar Lever		159E1E	*
pin		159E2	*
LOCKING-PISTON-BAR LEVER group		X159E	2.64

*159E1E is assembled with 159E2. Order by complete symbol X159E.

Locking-piston-bar-lever Fulcrum Stud		160E1	.17
Locking-piston-bar-lever Link		161E1	1.98
Locking-piston Cylinder (for 157E1)		162E1	3.96
Locking-piston-cylinder Screw (for 162E1) (4)	222..	163E1	.08

(For machines equipped with Eighteen-point Attachment prior to machine 4568—January, 1915—see Note E58)

Locking Piston (for c13C)		a164E1	2.64
Locking-piston Bar		165E1	.66
Locking-piston Cylinder (for a164E1)		a166E1	3.96
Locking-piston-cylinder Screw (for a166E1) (4)	222..	167E1	.08
Mold-blade-cam Lever compound lever		b44E7*	2.64
" " locking screw collar		b44E9*	.13

*These parts are standard with the later Display Attachments (Attachment 9CU) but must be furnished for machines having the superseded parts a44E7 and a44E9.

Column Pusher		a1F8F†	*
spring post (lower, in a1F8)		a1F9	★.07
" " (upper, in a1F8)	831..	1F3†	★.07
line support stop (and type guide)		1F1†	★.20
" " screw	253..	1F2†	★.03
sheave (for Weight Cord)		a1F7†	★.45
stop pin (for 54F1)	831..	a1F6†	★.07
stud (for a1F7)		a1F4†	★.07
" cotter	95..	a1F5†	★.00
COLUMN PUSHER group		X1F8	21.12

*a1F8F is assembled with 1F1, 1F2, 1F3, a1F4, a1F5, a1F6, a1F7, and a1F9. Order by complete symbol X1F8.

†These parts are not supplied as part of this Attachment for existing machines; instead, the standard COLUMN PUSHER X1F is drilled for the SPRING POST a1F9 and this POST forced into it, which converts COLUMN PUSHER X1F into X1F8.

Column-pusher Lever		a5F1F	†*
spring post (in a5E1)	854..	a5F2	★.05
COLUMN-PUSHER LEVER group		X5F1	2.90

*a5F1F is assembled with a5F2. Order by complete symbol X5F1.

†This part is not supplied as part of this Attachment on existing machines; instead the standard LEVER 5F is drilled and the SPRING POST a5F2 forced into it. This converts LEVER 5F into X5F1.

Column-pusher Spring (small)	6215..	130F1	.11
Line-hook-operating-slide Shoe (see Note 238)		X24F2	

Eighteen-Point Attachment—continued

Stop Slide

adjusting-stand guide bar plate		a44F18	★1.66
" " plate		a44F19	★1.98

*These parts are not supplied as part of this Attachment for existing machines; instead, the standard parts 44F5 and 44F7 are altered to convert them into a44F18 and a44F19.

Machines prior to 502, also machines 3883 and following, require in addition to the above the following (these parts or their equivalent were on machines 502 to 3882 inclusive):

Locking-bar Operating Rod

bearing block		b33E1	1.00
spring	667..	a33E7	.40
stop		a33E8	.13
LOCKING-BAR OPERATING ROD group		Xb33E	and consists of a33E, b33E1, a33E2 and a33E5 to a33E9 inclusive. Price 3.06

Attachment 11CU

LEAD AND RULE MOLD OPERATING ATTACHMENT

When applied to your machines fill in the following:

Applied to machines Nos....

Object: To operate continuous strip Molds on either Composing Machines or Type-&-Rule Casters.

When this attachment is applied the Display Type Attachment (Attachment 9CU) must be applied if not already on the machine. The Automatic Cutter (Attachment 12CU) should also be applied at the same time.

This Lead and Rule Mold Operating Attachment consists of the following:

(For the earlier attachments see Note B27)

Mold-blade Micrometer Wedge		51B1	1.80
adjusting screw		51B2	2.40
" " spring		51B3	.11
" " " screw (2)	2212..	51B4	.04
rod		51B5	.12
" nut	31..	51B6	.05
" " lock nut	31..	51B7	.05
" spring	6170..	51B8	.07
spring	6196..	51B9	.13
stand		51B10	3.00
MOLD-BLADE MICROMETER WEDGE group		X51B	7.81
Mold-blade-micrometer-wedge-stand Screw (2)	222..	52B1	.08

(For the earlier attachments having Spring Box in line with the Mold-blade Operating Bar see Note B28)

Mold-blade Operating Bar		53B1	3.60
Auxiliary Bracket		136E1E	*
adjusting screw		136E2	.07
clamp bolt		136E3	.18
" " nut (2)	312..	136E4	.07
pin		136E5	★.18
AUXILIARY BRACKET group		X136E	9.39

*136E1E is assembled with 136E5. Price is 9.00

Centering-pin-cam-lever Shaft		a15E1	1.58

(For the earlier attachments using Molds with Clamping Screw in the center of the front abutment see Note E59)

Centering-pin-lever Bracket		b134E1E	*
clamp (2)		a134E13	★.48
" pin (2)		a134E14	★.04
" thumb screw (2)		a134E15	★.13
CENTERING-PIN-LEVER BRACKET group		Xb134E	6.25

*b134E1E is assembled with a134E13, a134E14 and a134E15. Order by complete symbol Xb134E.

(For the earlier attachments using Molds with Clamping Screw in the center of the front abutment see Note E60)

Clamping-screw Connecting Rod		a135E1	.18
eye		a135E9	.79
" lock nut	314..	a135E10	.07
" pin		a135E11E	*
" " spring		a135E12	★.13
nut	314..	a135E13	.07
" lock nut	315..	a135E14	.07
washer (2)	410..	a135E15	.07
spring	6225..	b135E7	.24
" adjusting nut	315..	a135E16	.07
" " lock nut	314..	a135E17	.07
CLAMPING-SCREW CONNECTING ROD group		Xa135E	2.36

*a135E11E is assembled with a135E12. Price is .... .66

Guard (on 136E1)		137E1	.18
screw (2)	241..	137E2	.05
GUARD group		X137E	.28

Operating-bar Lever (2)		138E1E	*
bushing		138E2	*
connecting eye		138E3	*
" " pin		138E4	*
bolt	120..	138E5	★.10
" nut	310..	138E6	★.07
" sleeve		138E7	★.13
" washer	415..	138E8	★.07
OPERATING-BAR LEVER group		X138E	9.00

*138E1E is assembled with 138E2 to 138E8 inclusive. Order by complete symbol X138E.

Operating-bar-lever Fulcrum Pin		139E1	.30
cotter	93..	139E2	.00
OPERATING-BAR-LEVER FULCRUM PIN group		X139E	.30

Lead and Rule Mold Operating Attachmeut—continued

(For the earlier attachments having the Spring Box in line with the Mold-blade Operating Bar see Note E61)

Spring Box		141E1	1.80
cap (2)		141E2	.42
sleeve		141E3	.24
spring	6192..	141E4	.42
" abutment (2)		141E5	.18
rod		141E6	.24
" adjusting nut (2)	310..	141E7	.07
" " " lock nut (2)	312..	141E8	.07
" lock nut	312..	141E9	.07
trunnion		141E10	1.50
SPRING BOX group		X141E	5.75
Spring-box Lever (2) (each)		142E1	1.80
Spring-box-lever Fulcrum Pin		143E1	.60
nut (2)	319..	143E2	.08
SPRING-BOX-LEVER FULCRUM PIN group		X143E	.76
Spring-box-lever Link		144E1	1.80
Spring-box-lever-link Pin		145E1	.18
cotter	95..	145E2	.00
Spring-box-lever-link Pin group		X145E	.18
Melting-pot-chimney Extension		a13H1	1.20
Nozzle (for continuous strip Molds)		a14H4	1.25
Piston		17H	3.25
handle		17H1H	*
" stem		17H2	*
" " nut	314..	17H3	*
PISTON group		X17H	3.75

*17H1H is assembled with 17H2 and 17H3. Price assembled .... .50

NOTE: This is the same as the regular PISTON for composition or for casting small type on the TYPE-&-RULE CASTER but is furnished as part of the Lead and Rule Mold Operating Attachment to insure a tight fitting PISTON.

Pump Body		a23H11H	*
bearing (Nozzle end)		23H1	.13
guide		23H2	1.95
" screw (2)	220..	23H3	.10
plug (bottom)		23H4	.75
regulating screw		23H5	.75
valve		23H6	.65
PUMP BODY group		X23H11	18.00

*a23H11H is assembled with 23H1 to 23H6 inclusive. Order by complete symbol X23H11.

For machines using natural gas instead of artificial gas, also for machines equipped with 3-burner Gas Burner prior to August 26, 1918, see Note H36.

Machines prior to 5335 require, in addition to the above the following:

Gas Burner		b55H1H	*
air regulating sleeve (3)		55H2	★.07
" " " screw (3)	2167..	a55H3	★.05
clamp		a55H20	.44
" nut	319..	a55H21	.08
" washer	49..	a55H31	.07
screen (3)		a55H14	.25
" disc (3)		a55H33	.06
" holder (3)		a55H15	.70
" " collar (3)		a55H16	.35
shield (on a37H)		a55H27	.53
" pin		a55H28	.07
support		a55H22	†
" bolt		a55H32H	†
" " nut	327..	a55H29	.11
" cotter	92..	a55H24	.00
valve (3)		55H4H	§
" body		a55H9H	**
" " bolt	113..	55H10	.10
" " pipe (gal. iron, 1-4″ x 3 3-4″)		55H17	★.12
" " " elbow (45°)		55H18	★.07
" " " nipple (galv. iron)		55H19	★.20
" " plug (1-4″ iron) (3)		55H12	★.06
" " " (.190″, brass) (3)	2235..	55H11	★.03
" nozzle (3)		a55H5	.10
" nut(3)		55H7	★.11
" " lock nut (3)	392..	55H8	★.08
" spring (3)	6185..	55H6	★.13
GAS BURNER group		Xb55H	30.00

*b55H1H is assembled with 55H2 and a55H3. Price 11.75

†a55H32H is assembled with a55H22. Price is 2.00

§55H4H are each assembled with one of a55H5. Price each 1.45

(If natural gas is used, omit VALVES 55H4H and substitute VALVES a55H4H which are assembled with a55H30. Price each .... 1.45)

**a55H9H is assembled with 55H4H, 55H6, 55H7, 55H8, 55H11, 55H12, 55H17, 55H 8 and 55H19. Price 11.25

Attachment 12CU

AUTOMATIC CUTTER

When applied to your machines fill in the following:
Applied to machines Nos....

Object: To automatically cut the product of the continuous strip Molds to any length desired, from six picas to twenty-five inches.

To use this attachment requires that the machine be equipped with the Lead and Rule Mold Operating Attachment (Attachment 11CU) which in turn requires the Display Type Attachment (Attachment 9CU).

The Automatic Cutter consists of the following:

Automatic Cutter—continued

Shear Cam (Marked R) 148E1 4.20
screw (3) ..... 213.. 148E2 .10
" nut (3) ..... 314.. 148E3 .07
SHEAR CAM group X148E 4.71

(For Attachments shipped prior to machine 9465 see Note E68)
Guard ..... 276E1E *
bracket ..... 276E2 *
" screw (2) ..... 2233.. 276E3 .07
GUARD group X276E 1.99
*276E1E is assembled with 276E2. Price is 1.85

Box (for short leads) 76F1 2.10

(For the earlier attachments see Note F22)
Channel Bar (for leads and rules) a77F1 9.00
screw (2) ..... 227.. 77F2 .08
support (for long strips) a77F3 3.00
" screw ..... a77F4 .30
CHANNEL BAR group Xa77F 12.46

(For Attachments shipped prior to Feb. 1923, see Note F40)
Friction Plate 175F1 1.00
screw ..... 2167.. 175F2 .05
" washer ..... 440.. 175F3 .04
FRICTION PLATE group X175F 1.09

Galley ..... 78F1F *
support bar (2) ..... 78F2 *
" " rivet (5) ..... 7207.. 78F3 ★.01
ledge ..... a78F5 *
GALLEY group X78F 18.00
*78F1F is assembled with 78F2, 78F3, and a78F5. Order by complete symbol X78F.

Galley-pan Shelf
spring pin (for a114F1) ..... 834.. a17F8 .07

Guide Plate
(front) ..... 79F1F *
(rear) ..... 79F2 *
rivet (4) ..... 7160.. 79F3 *
separator (4) ..... 437.. 79F4 *
GUIDE PLATE group X79F 1.80
*79F1F is assembled with 79F2. 79F3 and 79F4. Order by complete symbol X79F.

Guide Roller (for strips) ..... 80F1 .60
eccentric shaft 80F1 1.62
" " handle ..... 865.. 80F3 .10
" " cotter ..... 95.. 80F4 .00
GUIDE ROLLER group X80F 2.32

Main Bracket ..... a81F1F *
spring post (for 120F1) ..... 831.. 81F3 ★.07
" " (for 127F1) ..... 856.. 81F4 ★.12
fulcrum-pin (for 108F1) ..... 81F5 ★.72
" " cotter ..... 91.. 81F6 .00
" " washer ..... 442.. 81F7 .13
MAIN BRACKET group X81F 48.13
*a81F1F is assembled with 81F3, 81F4 and 81F5. Price 48.00

Main-bracket Buffer (for Shear) (leather) .. 82F1 .18
screw (2) ..... 241.. 82F2 .05
" washer (2) ..... 440.. 82F3 .04
MAIN-BRACKET BUFFER group ..... X82F .36

Main-bracket Screw (2) (each) ..... 231.. 106F1 .08

Main-bracket Shield ..... 107F1 .18
screw (2) ..... 241.. 107F2 .05
MAIN-BRACKET SHIELD group ..... X107F .28

Patent Plate ..... a105F3 .18
screw (2) ..... 251.. 105F2 .04
PATENT PLATE group ..... X105F .26

Shear Bell Crank ..... 108F1F *
pin (stop for 123F1) ..... 7225.. 108F2 ★.02
post (for 121F2) ..... 858.. 108F3 .48
" nut ..... 35.. 108F4 .05
" washer ..... 420.. 108F5 .04
SHEAR BELL CRANK group X108F 12.57
*108F1F is assembled with 108F2. Price 12.00

Shear-bell-crank Adjusting Screw (in a81F1) ..... 136.. 109F1 .08
nut ..... 310.. 109F2 .07
SHEAR-BELL-CRANK ADJUSTING SCREW group ..... X109F .15

Shear Blade a83F2 3.60

Shear-blade Guide 84F1 18.00

Shear-blade Shoe ..... 85F1F *
screw (4) ..... 234.. 85F2 .07
tube ..... 85F3 *
" dowel ..... 535.. a85F4 *
SHEAR-BLADE SHOE group X85F 9.28
*85F1F is assembled with 85F3 and a85F4. Price 9.00
We do not furnish separate parts of this SHOE 85F1F. If a new TUBE 85F3 is required we furnish an assembled SHOE 85F1F and give credit of $6.64 upon receipt of the old parts provided the SHOE itself (85F1) is in good condition. No credit is allowed on the TUBE 85F3 or the DOWEL a85F4.

(For attachments shipped prior to December 21, 1915, see Note F23)
Shear-blade-shoe-tube Clamp
(upper) ..... a86F1 .72
(lower) a86F3 1.80
screw ..... 140.. 86F2 .07
SHEAR-BLADE-SHOE-TUBE CLAMP group X86F 2.59

Automatic Cutter—continued

(For attachments shipped prior to Feb. 1923 see Note F40)
Shear-blade-shoe-tube Guide ..... 87F1 .78
screw (2) ..... 2207.. 87F2 .05
SHEAR-BLADE-SHOE-TUBE GUIDE group ..... X87F .88

Shear-cam Lever ..... 110F1F *
spring pin ..... 834.. 110F2 ★.07
roller ..... 110F3 ★.90
" pin ..... 110F4 ★.18
SHEAR CAM LEVER group X110F 14.40
*110F1F is assembled with 110F2, 110F3 and 110F4. Order by complete symbol X110F.

(For attachments shipped prior to January 24, 1917 see Note F24)
Shear-cam-lever Spring ..... 6212.. a114F1 .24
plate (2) ..... a114F2 .04
SHEAR-CAM-LEVER SPRING group ..... X114F .32

(For attachments shipped prior to Feb. 1923 see Note F41)
Shear Gage ..... 88F1F *
lug ..... 88F2 ★.60
" latch ..... 88F3 .72
" pin ..... 7161.. 88F4 ★.01
adjusting nut ..... a88F5 .10
" " sleeve ..... a88F6 .30
SHEAR GAGE group X88F 7.12
*88F1F is assembled with 88F2 and 88F4. Price 6.00

(For attachments shipped prior to Feb. 1923 see Note F41)
Shear-gage Spring ..... 6237.. a89F1 .15

Shear Operating Pin ..... 115F1 .42
cotter (2) ..... 93.. 115F2 .00
washer ..... 45.. 115F3 .10
SHEAR OPERATING PIN group ..... X115F .52

Shear Trip Lever ..... 116F1F *
spring pin ..... 854.. 116F2 ★.05
SHEAR TRIP LEVER group ..... X116F .60
*116F1F is assembled with 116F2. Order by complete symbol X116F.

Shear-trip-lever Spring ..... 6201.. 117F1 .12
plate (2) ..... 117F2 .04
SHEAR-TRIP-LEVER SPRING group ..... X117F .20

Shear-trip-lever Spring Bar ..... 118F1F *
pin ..... 854.. 118F2 ★.05
screw (2) ..... 2166.. 118F3 .05
plate (stop for 91F1) ..... 118F4 .08
SHEAR-TRIP-LEVER SPRING BAR group .... X118F .78
*118F1F is assembled with 118F2. Price .60

Shear Yoke ..... 119F1F *
fulcrum pin ..... 119F2 .42
" " cotter (2) ..... 93.. 119F3 .00
spring pin ..... 831.. 119F4 ★.07
SHEAR YOKE group X119F 4.62
*119F1F is assembled with 119F4. Price 4.20

Shear-yoke Spring ..... 6207.. 120F1 .24
plate (2) ..... 120F2 .04
SHEAR-YOKE SPRING group ..... X120F .32

(For attachments shipped prior to Jan. 1924 see Note F42)
Stacker Guard 176F1 1.10

Stacker Plate ..... 90F1F *
support (right) ..... 90F2 *
" rivet (2) ..... 7216.. 90F3 ★.03
spring ..... 6206.. 90F4 .10
support spring pin ..... 854.. 90F5 ★.05
" (left) ..... 90F6 *
" rivet (2) ..... 7218.. 90F7 ★.03
STACKER PLATE group X90F 7.30
*90F1F is assembled with 90F2, 90F3, 90F5 90F6 and 90F7. Price 7.20

Stacker Rock Shaft 91F1 7.20

Stacker-rock-shaft Connecting Rod ..... 121F1 .18
eye (lower) ..... 121F2 .90
" (upper) ..... 121F3 .72
" pin ..... 121F4 .12
" " cotter (2) ..... 95.. 121F5 .00
nut (2) ..... 35.. 121F6 .05
STACKER-ROCK-SHAFT CONNECTING ROD group X121F 2.02

Stacker Support Block (2) 92F1 1.20
shoe (leather) (2) ..... 92F2 .18
" screw (8) ..... 244.. 92F3 .05
STACK SUPPORT BLOCK group (2) (each) X92F 1.58

Supporting Beam 93F1 6.00
bolt (2) ..... 15.. 93F2 .12
SUPPORTING BEAM group X93F 6.24

Supporting-beam Bracket (right) ..... 94F1F *
bolt (2) ..... 129.. 94F2 .08
spring pin ..... 855.. 94F3 ★.05
SUPPORTING-BEAM BRACKET group X94F 4.06
*94F1F is assembled with 94F3. Price. 3.90

Supporting-beam Bracket (left) ..... 95F1F *
bolt (2) ..... 129.. 95F2 .08
spring pin ..... 859.. 95F3 ★.01
SUPPORTING-BEAM BRACKET group X95F 3.46
*95F1F is assembled with 95F3. Price. 3.30

Thrust Bar 122F1 1.80
fulcrum pin ..... 122F2 .60
nut (2) ..... 122F3 .24
THRUST BAR group X122F 2.88

Automatic Cutter—continued

Thrust-bar Bell Crank ..... 123F1F *
pin ..... 861.. 123F2 ★.07
" cotter ..... 97.. 123F3 .00
spring pin ..... 851.. 123F4 ★.05
THRUST-BAR BELL CRANK group X123F 1.80
*123F1F is assembled with 123F2 and 123F4. Price 1.80

Thrust-bar-bell-crank Fulcrum Pin 862.. 124F1 .30
nut ..... 35.. 124F2 .05
THRUST-BAR-BELL-CRANK FULCRUM PIN group ..... X124F .35

Thrust-bar-bell-crank Operating Bar ... 125F1 .36

Thrust-bar-bell-crank Spring (short) ..... 6201.. 126F1 .12
plate (2) ..... 126F2 .04
THRUST-BAR-BELL-CRANK SPRING group ... X126F .20

Thrust-bar-bell-crank Spring (long) ..... 6202.. 127F1 .24
plate (2) ..... 127F2 .04
THRUST-BAR-BELL-CRANK SPRING group ... X127F .32

Thrust Bar Latch (left) ..... 128F1F *
spring pin ..... 854.. 128F2 ★.05
(right) ..... 128F3F †
spring pin ..... 854 128F4 ★.05
fulcrum pin ..... 863.. 128F5 .30
" " nut ..... 35.. 128F6 .05
spring ..... 6132.. 128F7 .13
THRUST BAR LATCH group X128F 2.28
*128F1F is assembled with 128F2. Price .90
†128F3F is assembled with 128F4. Price .90

Thrust-bar Operating Rod ..... 129F1 .48
eye ..... 129F2 .72
" lock nut ..... 35.. 129F3 .05
" pin ..... 860.. 129F4 .12
" " cotter ..... 95.. 129F4 .00
THRUST-BAR OPERATING ROD group X129F 1.37

(For attachments shipped prior to March 1924 see Note F39)
Transfer Bar (rear) a96F1 4.20
hanger (left) ..... 96F2F *
" spring pin ..... 864.. 96F3 ★.06
" (right) 96F4 1.80
" screw (4) ..... 241.. 96F5 .05
TRANSFER BAR group Xa96F 8.30
*96F2F is assembled with 96F3. Price 2.10

(For attachments shipped prior to March 1924 see Note F39)
Transfer Bar (front) a97F1 4.20
hanger (left) ..... 97F4F *
" spring pin ..... 864.. 97F5 ★.06
" (right) 97F6 1.80
" screw (4) ..... 241.. 97F7 .05
TRANSFER BAR group Xa97F 8.30
*97F4F is assembled with 97F5. Price. 2.10

Transfer-bar-hanger Rod 100F1 1.20
cotter (2) ..... 93.. 100F2 .00
TRANSFER-BAR-HANGER ROD group X100F 1.20

Transfer-bar-hanger Spring (long) .. 623.. a103F1 .11

Transfer-bar-hanger Spring (short) 6205.. 104F1 .10
plate (2) ..... 104F2 .04
TRANSFER-BAR-HANGER SPRING group .... X104F .18

(For attachments shipped prior to March 1924 see Note F43)
Transfer-bar Operating Lever ..... a101F1F *
extension ..... a101F2 ★.96
" rivet (2) ..... 7163.. a101F3 ★.01
adjusting screw ..... 2252.. a101F4 .08
" " nut ..... 35.. a101F5 .05
bearing ..... a101F6 ★.11
TRANSFER-BAR OPERATING LEVER group. Xa101F 2.08
*a101F1F is assembled with a101F2, a101F3, and a101F6. Price 1.95

Transfer-bar-operating-lever Adjusting Screw (in 119F1) ..... 121.. 102F1 .08
nut ..... 310.. 102F2 .07
TRANSFER-BAR-OPERATING-LEVER ADJUSTING SCREW group ..... X102F .15

Machines equipped with the Electric Melting Pot (Attachment 16CU) require, in addition to the above parts, the following:

Main-bracket Bolt ..... 17.. a106F2 .13
nut ..... 329.. a106F3 .14

In addition to the above parts, which are common to both the Composing Machine and the Type-&-Rule Caster, the following are required:
For Composing Machines only—

Shear-cam-lever Fulcrum Pin 111F1 1.50
nut ..... 329.. 111F2 .14
washer ..... 443.. 111F3 .20
SHEAR-CAM-LEVER FULCRUM PIN group ... X111F 1.84

(For machines prior to 5383 see Note F36)
Shear-cam-lever-fulcrum-pin Bracket .. a113F1 4.80
screw (2) ..... 29.. a113F2 .11
SHEAR-CAM-LEVER-FULCRUM-PIN BRACKET group Xa113F 5.02

Composing Machines prior to 5533, in addition to the above, require the following:

Column-pusher Fulcrum Screw ..... a4F3 .36

Automatic Cutter—continued

For Type-&-Rule Casters only—

Shear-cam-lever Fulcrum Pin		112F1	.72
cotter (2)	**92**	112F2	.00
Shear-cam-lever Fulcrum Pin group		**X112F**	**.72**

Type-&-Rule Casters prior to 4619, also Nos. 4648 to 4657 inclusive, require in addition to the above the following, which are not included in the price of the attachment:

Main Galley Stand		**a70F1**	**46.20**

Pump Trip

handle		a35H12	2.10
" nut		35H8	.60

Main Galley Stand stud		**a31F7**	

The superseded parts 70F1 and 54H1 provided for a galley pan projecting toward the front; the improved parts have the galley pan toward the right the same as on Composing Machines. These improved parts must be on the machine in order to apply the Automatic Cutter. To apply the imporved parts a70F1, a35H12, 35H8 and a31F7 to these machines requires that they be furnished together when ordered for the first time.

On machines prior to 5158 in addition to furnishing the above new parts the Cam-shaft Gear 10E5 must be altered to take the screws 148E2.

Machines equipped with the 3-burner Gas Burner prior to August 28, 1918, require in addition to the above the following parts:

Gas-burner Stand bolt		**a6H4**	**.30**

Machines equipped with Display Type Attachment prior to 5064 (except 4958 to 4967 inclusive and 5023 to 5027 inclusive) require in addition to the above the following:

Worm Shaft

collar		a80E7	.60
nut		a80E8	.66

Machines equipped with Display Type Attachment, including Speed Regulating Attachment (Attachment 9CU), prior to machine 4674 require in addition to the above the following improved parts of the Speed Regulating Attachment:

For Composing Machine:

Interlocking-lever Operating Rod		a109E1	.66
eye		a109E2E	*
" pin		a109E3	★.07
" " washer	**412**	a109E6	.07

*a109E2E is assembled with a109E3. Price 1.00

For Type-&-Rule Caster:

Interlocking-lever Operating Rod		b109E7	.66
eye		a109E2E	*
" pin		a109E3	★.07
" " washer	**412**	a109E6	.07

*a109E2E is assembled with a109E3. Price 1.00

Attachment 13CU

PIECE LEAD MOLD (STYLE LF) OPERATING ATTACHMENT

When applied to your machines fill in the following:

Applied to machines Nos.....

Object: To operate the Style LF (piece lead) Mold for casting two-point column-width leads on either the Composing Machine or the Type-&-Rule Caster.

When this attachment is applied the Display Type Attachment (Attachment 9CU) must be applied if not already on the machine:

The Piece Lead Mold Operating Attachment consists of the following:

Cross-block Connecting Rod		54B1B	*
distance sleeve		54B2	.20
eye (Cross Block end)		54B3B	†
" lock nut	**317**	54B4	.07
" pin		54B5	★.13
" " lock screw		54B6	★.13
" (Cam Lever end)		54B7	1.32
" lock nut	**316**	54B8	.07
sleeve (large)		54B9	.50
" washer (short) (2)		54B10	.20
stop sleeve (short, right)		54B11	★.20
" " (long, left)		54B12	.20
" " rivet (2)	**743**	54B13	★.03
spring (2)	**615**	54B14	.24
" abutment		54B15	.26
Cross-block Connecting Rod group		**X54B**	**6.30**

*54B1B is assembled with 54B11 and 54B13. Price 1.55

†54B3B is assembled with 54B5 and 54B6. Price 1.25

Mold-blade-operating-rod-fork-pin Spring		**b16C18***	**.13**

*For machines prior to 4658, except 4508 to 4512 inclusive, 4533 to 4537 inclusive, 4573 to 4582 inclusive, 4589 to 4602 inclusive, and 4618 to 4647 inclusive. Composing Machines use a16C18 and Type-&-Rule Casters use a16C19. (Price is the same)

Piece Lead Mold (Style LF) Operating Attachment—continued

Centering-pin-lever Bracket		134E1E	*
ball stud (2)		134E2	★.36
clamp		134E3	★.42
" stud (front)		134E4	★.10
" " (rear)		134E5	★.10
" " spring	**6136**	134E6	★.07
" " wing nut		134E7	★.30
eye bolt		134E8	★.48
" " dowel	**7159**	134E9	★.01
" " pin		134E10	★.02
" " washer		134E11	★.07
" " wing nut		134E12	★.30
Centering-pin-lever Bracket group		**X134E**	**9.50**

*134E1E is assembled with 134E2 to 134E12 inclusive. Order by complete symbol X134E.

Mold-blade Bell Crank		a41E2E	*
ball stud	**841**	41E1	★.40
lever		a41E3	6.00
" operating lever		a41E4	5.50
stud (for a41E3)		a41E5	.30
" nut	**314**	a41E6	.07
" (for a41E4)		a41E7	.35
" nut (lower)	**314**	a41E8	.07
" " (upper)	**310**	a41E9	.07
" washer	**415**	a41E10	.07
Mold-blade Bell Crank group		**X41E2**	**19.43**

*a41E2E is assembled with 41E1. Price 7.00

Mold-clamp Connecting Rod (front,

long)		149E1	.20
ball socket (upper, long)		149E2	1.06
" " (upper, short)		149E3	.66
" " (lower)		149E4*	.92
" " lock nut		149E5*	.34
" " plug		149E6*	.86
nut (2)	**310**	149E7	.07
" lock nut	**312**	149E8	.07
spring	**6178**	149E9	.24
Mold-clamp Connecting Rod group		**X149E**	**4.49**

*These parts are furnished with the Mold and are not a part of this Attachment.

Mold-clamp Connecting Rod (left, short)

		150E1	.20
ball socket (upper, long)		150E2	1.06
" " (upper, short)		150E3	.66
" " (lower)		150E4*	.92
" " lock nut		150E5*	.34
" " plug		150E6*	.86
nut (2)	**310**	150E7	.07
" lock nut	**312**	150E8	.07
spring	**6177**	150E9	.20
Mold-clamp Connecting Rod group		**X150E**	**4.43**

*These parts are furnished with the Mold and are not a part of this Attachment.

Operating-lever Abutment (for a41E4)

		147E1	1.25
adjusting nut (2)	**314**	147E2	.07
bracket		147E3	1.25
" screw (2)	**223**	147E4	.08
Operating-lever Abutment group		**X147E**	**2.80**

Channel Block (adjustable)

		50F	★3.30
clamp		a50F18F	*
" latch		a50F19	★1.40
" " screw	**249**	a50F13	★.04
" spring	**650**	50F4	★.07
" tongue		50F5	*
" " rivet (3)	**721**	50F8	★.01
stop plate		50F9	★.07
" " screw (2)	**250**	50F10	★.04
Channel Block group		**Xc50F**	**16.90**

*a50F18F is assembled with 50F, 50F4, 50F5, 50F8, 50F9, 50F10, a50F13 and a50F19. Order by complete symbol Xc50F.

Channel Block (fixed)

		a51F18F	*
facing		a51F16	*
" rivet (4)	**7158**	a51F8	★.04
latch		a51F19	★1.40
" screw	**2204**	a51F9	★.05
Channel Block group		**X51F18**	**8.00**

*a51F18F is assembled with a51F8, a51F9, a51F16 and a51F19. Order by complete symbol X51F18.

Attachment 15CU

BORDER ATTACHMENT MATRIX LIFTING DEVICE

When applied to your machine fill in the following:

Applied to Machines Nos.....

Object: To cast continuous strip borders on either Composing Machines or Type-&-Rule Casters.

To use this attachment requires that the machines be equipped with the Lead and Rule Mold Operating Attachment (Attachment 11CU) which in turn requires the Display Type Attachment (Attachment 9CU). The Automatic Cutter (Attachment 12CU) should also be applied at the same time. The Border Attachment, Matrix Lifting Device, consists of the following:

Matrix Carrier		a53A1	3.00
spring box		a53A2	2.00
" " cap		a53A10	1.20
" " clip		a53A8	.75
" " lifting rod		a53A12	.50
" " " " adjusting nut		a53A3	1.25
" " " " " " lock nut		a53A13	.07
" " " " nut	**35**	53A5	.05
" " " " lock nut	**37**	53A6	.05
" " spring	**6224**	a53A7	.80
Matrix Carrier group		**X53A**	**9.67**

Border Attachment Matrix Lifting Device—continued

Matrix-carrier Bracket		a54A1	1.75
clamp		54A2	.75
" bolt	**133**	a54A3	.10
cotter	**91**	54A4	.00
Matrix-carrier Bracket group		**X54A**	**2.60**
Gage (for adjusting stroke of Border Mold)		a24L	1.00

The attachment requires the Style RD Mold which is similar to the style R Mold except that it is equipped for casting borders only.

Note that a54A1 and a54A3 must be ordered together when either is ordered for the first time.

Attachment 16CU

ELECTRIC MELTING POT

When applied to your machines fill in the following:

Applied to machines Nos.....

Object: To use electricity for heating the metal in the Melting Pot.

The Electric Melting Pot is regularly furnished for either 110 or 220 volt direct or alternating current as specified. If any other voltage is required consult the main office in Philadelphia.

This attachment consists of the following:

Machines on and after Dec. 1, 1921, were equipped with the following parts:

Melting Pot		c12H12H	*
casing		c12H13H	†
" plate		a12H14	†
" " screw (8)	**2203**	a12H15	★.07
" screw (4)	**2198**	b12H16	★.08
" stud (2)		a12H9	★.11
" bracket		a12H18	†
" " screw (2)	**216**	a12H19	★.10
" " dowel (2)	**58**	a12H20	★.04
Melting Pot group		**Xb12H12**	‡

*c12H12H is assembled with the heating units. Price, $105.00. †c12H13H is assembled with a12H14, a12H15, b12H16, a12H9, a12H18, a12H19, and a12H20. Price, $52.00. ‡Price, including dynamic thermometer and control panel....$250.00

Machines equipped with Xb12H12 prior to Jan. '23 were equipped with b12H13H. The new part c12H13H has 3 holes (instead of 4) for Thermometer Case Screws.

Machines from Feb. 9, 1921 to Dec. 1, 1921 were equipped with Melting Pot Xa12H12. (Two external and two internal heaters).

Machines prior to Feb. 9, 1921, were equipped with Melting Pot X12H12. (Four internal heaters).

Pump-body Lifting Lever (Piston end)		**X25H**	**10.65**

Note: This is the same as the regular Lifting Lever supplied with machines 5523 and following. It is supplied with this Attachment for convenience in changing from the gas heated to the Electric Melting Pot.

Pump-body Lifting Lever (Nozzle end)		**X26H**	**4.93**

Note: This is the same as the regular Lifting Lever supplied with machines 5069 and following. It is supplied with this Attachment for convenience in changing from the gas heated to the Electric Melting Pot.

Attachment 18CU

SHORT TYPE ATTACHMENT

When applied to your machines fill in the following:

Applied to machines Nos.....

Object: To provide for the casting and delivery of short type from Style FC and Style FD (Short Type) Molds on either the Composing Machine or Type-&-Rule Caster.

This attachment consists of the following:

Type Carrier		a20B15B	*
bushing	**458**	a20B10	★.07
jaw		a20B16	*2.00
" rivet (2)	**7168**	a20B17	★.03
lever (for a31B8)		d20B3	*2.75
" pin		b20B4	★.10
" " cotter	**95**	a20B9	★.00
" stand		b20B1	★1.98
" " rivet (2)	**7104**	a20B2	★.01
" (for a26B4)		a20B11	★.66
" pin	**7161**	a20B12	★.01
shield		a20B5	★.07
" screw (2)	**252**	20B6	★.03
stop (for Type Support)		a20B18	*2.00
" rivet	**7139**	a20B19	★.01

Type Carrier group, including Rod Xa21B, Extension X22B, Clamp Xa26B4, Shoe b23BB, Shoe b24B, Shoe Xa27B4, and Spring Xa31B8..... **Xa20B15 65.00**

*a20B15B is assembled with b20B1, a20B2, d20B3, b20B4, a20B5, 20B6, a20B9, a20B10, a20B11, a20B12, a20B16, a20B17, a20B18, a20B19, Xa21B, X22B, Xa26B4, b23BB, b24B, Xa27B4, and Xa31B8. Order by complete symbol Xa20B15.

Short Type Attachment—continued

Type-carrier Connecting Rod	21B	.20
forked eye (Carrier end)	21B1B	*
" " lock nut (L. H.) 317	21B2	.07
" " pin	21B3	*
" " dowel 58	21B4	*.04
" " (Cam Lever end)	a21B5	1.32
" " lock nut 316	21B6	.07
" " pin	21B7	.10
" " " cotter 93	21B8	.00
spring 615	21B9	.24
" abutment	21B10	.26
sleeve	21B11	.34
TYPE-CARRIER CONNECTING ROD group	**Xa21B**	**3.60**

*21B1B is assembled with 21B3 and 21B4. Price 1.00

Type-carrier Extension	a22B	.47
lock nut 310	22B1	.07
sleeve	a22B2	.13
spring 616	22B4	.26
TYPE-CARRIER EXTENSION group	**X22B**	**.93**

Type-carrier Shoe (long)	b23BB	*
cam (front)	a23B3	*
" (rear)	a23B4	*
" rivet (lower) 7206	a23B5	*.01
" " (right) 721	a23B6	*.01
" " (center, left) (2) 7207	a23B7	*.01

*b23BB is assembled with a23B3 to a23B7 inclusive. Price 2.64

Type-carrier Shoe (short)	**b24B**	**.34**

Type Clamp	b26B4	8.19
extension	b26B1	.13
spring 6221	a26B7	.07
TYPE CLAMP group	**Xa26B4**	**8.39**

Type-clamp Shoe	a27B4	.96
screw (3) 260	a27B	.03
TYPE-CLAMP SHOE group	**Xa27B4**	**1.05**

Type Pusher	a29B8B	*
blade	b29B1	*
" rivet (head end) (2) 732	29B2	*.01
" " (eye end, long) 7104	29B3	*.01
" " (eye end, short) 732	29B4	*.01
eye	a29B5	*

*a29B8B is assembled with b29B1, 29B2, 29B3, 29B4, and a29B5. Price 10.00

Type-pusher Guide	**a28B4**	**5.00**

Type Support Spring	b31B8	*1.00
bar	g31B1B	*
" rivet (2) 7208	a31B2	*.01
" yoke	a31B10	1.25
" spring 6110	a31B6	.07
" extension	a31B7	.34
TYPE SUPPORT SPRING group	**Xa31B8**	**3.66**

*g31B1B is assembled with a31B2, and b31B8. Price 2.00

Line Hook	a19F6F	*
lever	19F3	*
rivet (2) 7164	19F4	*
block	a19F7	*
LINE HOOK group	**Xa19F6**	**15.00**

*a19F6F is assembled with 19F3, 19F4 and a19F7. Order by complete symbol Xa19F6.

Type Channel Block	b51F30F	*
latch	a51F31	*2.50
" screw (2) 2220	a51F32	*.04
pin	a51F33	*.10
type guide plate (right)	a51F34	*3.50
" " " screw (6) 2220	a51F35	*.04
" " " (left)	a51F36	*3.50
" " " screw (5) 2220	a51F37	*.04
adjusting screw	a51F38	*.20

*b51F30F is assembled with a51F31 to a51F38 inclusive. Price 50.00

For Type-&-Rule Casters omit Line Hook Xa19F6 and furnish

Type-channel-block Support	**a51F39**	**1.50**

In addition to furnishing the above new parts the following alteration must be made: On Machines prior to 9843 the Normal-wedge-locking-pin Stand must have clearance cut in it to clear the Type Pusher.

Attachment 19CU

COMPOSITION MATRIX SORTS CASTING (TYPE-&-RULE CASTER)

When applied to your machine fill in the following:

Applied to machines Nos.....

Object: To provide means on the Type-&-Rule Caster for quickly positioning the standard Matrix Case (.2 by .2 Matrices) for casting sorts.

This attachment consists of the following:

Matrix-case Positioner (C side)	39C1	3.78
base plate (covers Pin Block)	39C2C	*
" " screw (2) 223	39C3	.08
guide rod	39C4	3.80
" " stand (front)	39C5	*1.39
" " " (rear)	39C6	*1.52
" " " clamp screw 232	39C7	.07
lock pin	39C8	.66
" " guide pin	39C9	.04
" " head	39C10	.20
" " spring 632	39C11	.07

Matrix-case Positioner—continued

position plate	39C12	.80
" " screw (2) 251	39C13	.04
plug	39C14	.13
MATRIX-CASE POSITIONER group	**X39C**	**16.66**

*39C2C is assembled with 39C5 and 39C7. Price 6.87

Matrix-case-positioner Pointer	55B1	.60
screw (2) 251	55B2	.04
MATRIX-CASE-POSITIONER POINTER group	**X55B**	**.68**

Matrix-case-positioner Guide Rod	56B1	3.80
sleeve	56B2	.56
MATRIX-CASE-POSITIONER GUIDE ROD group	**X56B**	**4.36**

In addition to the above listed parts furnish

CROSS-SLIDE DRAW ROD	**b5C1**	**1.50**

Except for machines prior to 4658 (except 4508 to 4512 inclusive, 4533 to 4537 inclusive, 4573 to 4582 inclusive, 4589 to 4602 inclusive, and 4618 to 4647 inclusive which use b5C1) furnish instead

CROSS-SLIDE DRAW ROD	**a5C1**	**1.50**

Attachment 20CU

3U MOLD (CORED) OPERATING ATTACHMENT

When applied to your machines fill in the following:

Applied to machines Nos.....

Object: To provide for the use of Style 3U Cored Molds on either the Composing Machine or the Type-&-Rule Caster.

NOTE: This attachment is used for the 30- and 36-point 3U (cored) Molds. The 4U Mold which is used for casting 24-point cored product does not require this attachment, but operates with the same standard equipment as the earlier 1U and 2U Molds.

This attachment consists of the following:

For Type-&-Rule Casters

(For early Attachments see Note F44)

Centering-pin Loading Lever	275E1	8.56
spring 665	275E2	.26
" plunger	a275E3	.69
" " adjusting screw 121	a275E8	.08
" " " " nut 310	a275E9	.07
" " rod	275E4	.20
" " " nut 314	275E5	.07
" " " " lock nut 315	275E6	.07
CENTERING-PIN LOADING LEVER group	**X275E**	**10.00**

Bridge-lever-link Pin	a3A2A	*
spring	a3A1	*.13
BRIDGE-LEVER-LINK PIN group	**Xa3A2**	**.92**

*a3A2A is assembled with a3A1. Order by complete symbol Xa3A2.

Piston Spring 6159	**a20H8**	**1.32**

Mold-blade Operating Rod		
ejecting spring 6191	a16C21	.40
" " sleeve	b16C4	.26

Piston	**X17H5**	**3.75**

Nozzle	**a14H2**	**1.00**

Pump Body	23H	*
bearing (nozzle end, for a26HH)	a23H19H	*
guide (and stop, for a17H5)	23H2	*1.50
" screw (2) 220	23H3	*.10
plug (bottom)	23H4	*.75
regulating screw (for flow of metal)	23H5H	†
" " head	a23H16	†
" " tip	a23H17	†
valve	23H6	*1.00
PUMP BODY group	**Xa23H19**	**15.00**

*a23H19H is assembled with a23H, a23H2, 23H3, 23H4, 23H5H, and 23H6. Order by complete symbol Xa23H19.
†23H5H is assembled with a23H16 and a23H17. Price .75

For Composing Machines (equipped with Display Type Attachment 9CU) omit the Lever X275E from the above list of parts and add the following:

Centering-pin Loading Lever	275E7	8.56
spring 665	275E2	.26
" plunger	a275E3	.69
" " adjusting screw 121	a275E8	.08
" " " " nut 310	a275E9	.07
" " rod	275E4	.20
" " " nut 314	275E5	.07
" " " " lock nut 315	275E6	.07
CENTERING-PIN LOADING LEVER group	**X275E7**	**10.00**

CENTERING-PIN-LIFTING-LINK GAG BLOCK (2)	67A1	.70
clip (2)	67A2	.70
CENTERING-PIN-LIFTING-LINK GAG BLOCK group (2) each	**X67A**	**1.40**

Attachment 21CU

ENGLISH DISPLAY COMPOSITION EQUIPMENT

When applied to your machines fill in the following:

Applied to machines Nos.....

Object: To adapt the Composing Machine to run English Display Composition Matrices of 14-, 16-, 18-, and 24-point size.

When this attachment is applied the Display Type Attachment (Attachment 9CU) must be applied at the same time if it is not already on the machine.

When this attachment is applied it is advisable also to apply the Sixty Pica Device, Improvement No. 28, if it is not already on the mahcine.

This attachment consists of the following:

Centering Pin	29A1A	*
washer	29A2	*.36
key 7176	29A3	*.01
nut 310	29A4	.07
CENTERING PIN group	**X29A**	**4.69**

*29A1A is assembled with 29A2, and 29A3. Price 4.62

In addition to the above the following is required for 24 point only:

Column Pusher		
spring pin (for a5F14) 854	**a1F11**	**.05**
Column-pusher Lever		
spring (to a1F11)	**a5F14**	**.11**
spring pin 854	**a5F15**	**.05**
Adjusting Screw group	**Xa2F**	**5.20**
Column-pusher Adjusting Stand group	**Xa3F**	**8.90**

Line Hook (lower)	a19F8F	*
(upper)	19F2	*
lever	19F3	*
rivet (2) 7164	19F4	*
separator	a19F9	*
LINE HOOK group	**Xa19F8**	**13.20**

*a19F8F is assembled with 19F2, 19F3, 19F4, and a19F9. Order by the complete symbol Xa19F8.

Stop Slide	a44F20F	*
pin	44F15	*.07
adjusting stand	a44F21	8.00
" " plate	a44F22	3.96

*a44F20F is assembled with 44F15. Price is 7.28

In addition to furnishing the above parts the COLUMN PUSHER must be drilled to receive PIN a1F11, and the COLUMN-PUSHER LEVER 5F must be drilled to receive PIN a5F15.

NOTE: For casting English Composition 12-point and smaller it is necessary to supply only the CENTERING PIN group X29A, and furnish a .020″ liner for placing under American Molds.

Attachment 22CU

ENGLISH DISPLAY EQUIPMENT

When applied to your machines fill in the following:

Applied to machines Nos.....

Object: To adapt the Composing Machine and Type-&-Rule Caster to use English Display Matrices.

This attachment consists of the following:

For Composing Machine

Centering Pin	29A1A	*
washer	29A2	*.36
key 7176	29A3	*.01
nut 310	29A4	.07
CENTERING PIN group	**X29A**	**4.69**

*29A1A is assembled with 29A2 and 29A3. Price 4.62

When this attachment is applied the Display Type Attachment (Attachment 9CU) must be applied at the same time if it is not already on the machine.

In addition to furnishing the above parts the BRIDGE a1A must be altered by enlarging the holes for the BOLTS 6A3, the CENTERING-PIN STAND a6A must be reduced on its diameter which extends down through the BRIDGE, and the SLIDING FRAME b9A must be altered to receive the spring clip on the ENGLISH MATRIX HOLDER. The BRIDGE should be returned to our Factory for these alterations.

For Type-&-Rule Casters

In place of X29A group, use

Centering Pin	**a5AA**	**4.62**

The same alterations must be made for the Type-&-Rule Caster as are made for the Composing Machine.

Attachment 24CU

KEROSENE (COAL OIL) AND GASOLINE BURNER

When applied to your machines fill in the following:

Applied to machines Nos.....

Object: To use liquid Kerosene (Coal Oil) or Gasoline for heating the metal in the Melting Pot.

This attachment consists of the following:

Kerosene Burner (Ozaukee)

burner body	F2..	36L1*	12.00
" " top plate	F3..	36L2	1.00
" " generator cup screw (2)	F4..	36L3	.20
" " " attaching screw (2)	F5..	36L4	.20
" " baffle ring	F6..	36L5	1.60
generator tube cup	F10..	36L6✦	.40
" " screw	F11..	36L7	.10
" " round cup	F12..	36L8	.30
" " " " screw	F13..	36L9	.10
" " " " " l. n.	F14..	36L10	.10

Kerosene Burner (Ozaukee)—continued

generator body	F16..	36L11†	.85
" jet	F17..	36L12	.50
" needle	F18..	36L13	1.00
" valve packing	F19..	36L14	.10
" " bushing	F20..	36L15	.20
" " packing nut	F21..	36L16	.50
" " stem locking nut	F22..	36L17	.10
" tube	F23..	36L18	.55
" " connection	F24..	36L19	.20
valve handle	F26..	36L20‡	.50
" stem	F27..	36L21	.50
feed wire (five feet long)	F30..	36L22§	1.00
" " nut (2)	F29..	36L23	.25
" " jams (2)	F31..	36L24	.25
tank (10 gal. with aux. tank)	OT5..	36L25	16.00
foot pump	OT6..	36L26	4.00
screw (in bottom of burner)	**132**..	36L27	.08
" washer	**410**..	36L28	.07
support		36L29L	✦
" arm		36L30	1.25
" " clamp screw	**112**..	36L31	.11
" bolt		36L32	✦
" " nut	**327**..	36L33	.11
" cotter	**92**..	36L34	.00

Kerosene Burner (Ozaukee)—continued

KEROSENE BURNER group.....F1.. **X36L** **38.62**

*36L1L (complete BODY assembly F1) includes 36L1 to 36L5 inclusive. Price 15.00

*36L6L (GENERATOR TUBE CUP assembly (includes 36L6 to 36L10 inclusive. Price 1.00

†36L11L (GENERATOR assembly F15) includes 36L11 to 36L19 inclusive. Price.... 4.00

‡36L20L (VALVE HANDLE assembly F25) includes 36L20 and 36L21. Price.... 1.00

§36L22L (FEED WIRE complete F28) includes 36L22, 36L23 and 36L24. Price.... 1.50

Feed Wire in lengths longer than five feet furnished on special order at 20c per foot.

✦36L29L is assembled with 36L32. Price 2.00

NOTE: The symbols F2, F3, etc. in the above list are the maker's catalog numbers of the parts.